

LLNL Livermore Site Third Quarter 2014 Self-Monitoring Report

This quarterly report presents the third quarter 2014 self-monitoring data for the ground water and soil vapor treatment facilities at the Lawrence Livermore National Laboratory (LLNL) Livermore Site. The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the third quarter of 2014 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, chromium, and bioassay analyses (Tables A-1 through A-5). During the third quarter of 2014, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment C. The contour maps for the individual HSUs are based on data collected during the third quarter of 2014.

Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, July through September 2014.

Treatment Area^a	Month	Volume of ground water extracted (Kgal)^b	Volume of vapor extracted (Kcf)^b
TFA	July	9,184	-
	August	8,879	-
	September	9,572	-
TFB	July	2,736	-
	August	2,257	-
	September	2,738	-
TFC	July	2,813	-
	August	1,776	-
	September	1,139	-
TFD	July	6,273	767
	August	5,266	702
	September	4,011	795
TFE	July	2,538	1,443
	August	2,053	500
	September	1,911	629
TFG	July	438	-
	August	382	-
	September	330	-
TFH	July	697	2,330
	August	633	1,968
	September	614	2,214
TOTAL^c		66,240	11,348

^a Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

^b Totals are derived from individual extraction wells shown in Attachment B.

^c Rounded number.

Kcf = Thousands of cubic feet.

Kgal = Thousands of gallons.

Table 2. VOC mass removed at the Livermore Site, July through September 2014.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	1.0	-	1.0
TFB	0.5	-	0.5
TFC	0.7	-	0.7
TFD	4.1	0.4	4.5
TFE	1.8	0.4	2.2
TFG	0.10	-	0.1
TFH	0.2	4.6	4.8
TOTAL^b	8.4	5.4	13.8

Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through September 2014.

Treatment Area^a	Volume of ground water extracted (Mgal)	Volume of vapor extracted (Mcf)
TFA	2,156	-
TFB	520	-
TFC	587	-
TFD	1,199	136
TFE	429	211
TFG	96	-
TFH	185	294
TOTAL^b	5,172	641

Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through September 2014.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	218	-	218
TFB	85	-	85
TFC	115	-	115
TFD	901	100	1,001
TFE	237	158	395
TFG	13	-	13
TFH	42	1,289	1,331
TOTAL^b	1,611	1,547	3,158

^a Refer to Table 1 footnote for facilities in each treatment facility area.^b Rounded number.

Abbreviations for Tables 2, 3 and 4:

kg = Kilograms.

Mcf = Millions of cubic feet.

Mgal = Millions of gallons.

VOC = Volatile organic compound.

Attachment A

VOC, Chromium, and Bioassay

Analyses

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
TFA-I001	02-JUL-14	E601	<0.5	0.85	0.61	<0.5	0.99	<1	<0.5	6	<0.5	0.62	<0.5
TFA-I001	01-AUG-14	E601	<0.5	0.95	0.72	<0.5	1	<1	<0.5	5.3	<0.5	0.59	<0.5
TFA-I001	02-SEP-14	E601	<0.5	0.93	0.67	<0.5	0.96	<1	<0.5	5.3	<0.5	0.5	<0.5
TFA-E001	02-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	01-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	02-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E													
STU06-I	07-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	4.5	<0.5	<0.5	<0.5
STU06-I	01-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	4.6	<0.5	<0.5	<0.5
STU06-I	03-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	5.1	<0.5	<0.5	<0.5
STU06-E	07-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	01-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	03-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB													
TFB-I002	02-JUL-14	E601	0.52	2.1	<0.5	<0.5	1.2	<1	3	1.1	<0.5	11	<0.5
TFB-I002	04-AUG-14	E601	0.52	2.2	<0.5	<0.5	1.2	<1	2.9	1.1	<0.5	11	<0.5
TFB-I002	02-SEP-14	E601	0.5	2.1	<0.5	<0.5	1.1	<1	2.8	1	<0.5	11	<0.5
TFB-E002	02-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	04-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	02-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC													
TFC-I003	01-JUL-14	E601	<0.5	1.2	<0.5	<0.5	0.82	<1	11	3.7	<0.5	12	<0.5
TFC-I003	04-AUG-14	E601	<0.5	1.1	<0.5	<0.5	0.75	<1	8.5	3.3	<0.5	11	<0.5
TFC-I003	02-SEP-14	E601	<0.5	1.8	<0.5	<0.5	1.4	<1	18	2	<0.5	15	<0.5
TFC-E003	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	04-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	02-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E													
MTU1-I	09-JUL-14	E601	<0.5	11	<0.5	<0.5	0.66	<1	7.9	<0.5	<0.5	6.6	3.2
MTU1-I	06-AUG-14	E601	<0.5	13	<0.5	<0.5	0.8	<1	9	<0.5	<0.5	7.4	4
MTU1-I	04-SEP-14	E601	<0.5	12	<0.5	<0.5	0.66	<1	7	<0.5	<0.5	6.7	2.9

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-E (cont.)													
MTU1-E	09-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	06-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	04-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-SE													
PTU1-I	07-JUL-14	E601	<0.5	7.3	<0.5	<0.5	3.5	<1	6.9	<0.5	<0.5	20	<0.5
PTU1-I	04-AUG-14	E601	<0.5	7.5	<0.5	<0.5	3.2	<1	6.1	<0.5	<0.5	21	<0.5
PTU1-I	03-SEP-14	E601	<0.5	7.1	<0.5	<0.5	3.2	<1	6.3	<0.5	<0.5	20	<0.5
PTU1-E	07-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	04-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	03-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD^a													
TFD-I004	01-JUL-14	E601	2	2.6	<0.5	<0.5	0.92	<1	0.69	1.7	<0.5	48	12
TFD-I004	01-AUG-14	E601	1.8	2.5	<0.5	<0.5	0.94	<1	0.64	1.5	<0.5	46	10
TFD-I004	22-SEP-14	E601	1.1	2.7	<0.5	<0.5	<0.5	<1	<0.5	0.52	<0.5	20	18
TFD-I004	29-SEP-14	E601	0.97	2	<0.5	<0.5	<0.5	<1	<0.5	0.51	<0.5	15	17
TFD-I004	30-SEP-14	E624	<1	2	<1	<1	<1	<1	<1	<1	<1	17	15
TFD-E004	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	01-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	30-SEP-14	E624	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<1
TFD-E													
PTU8-I	09-JUL-14	E601	4.4	1.3	<0.5	<0.5	3	<1	0.57	3.6	<0.5	71	0.58
PTU8-I	06-AUG-14	E601	2.6	1	<0.5	0.65	5.4	<1	<0.5	4.9	<0.5	73	0.77
PTU8-I	04-SEP-14	E601	3.3	1.1	<0.5	<0.5	3.4	<1	<0.5	2.8	<0.5	70	0.64
PTU8-E	09-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	06-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	04-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-HPD													
PTU10-I	15-JUL-14	E601	1.4	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	32	<0.5
PTU10-I	11-AUG-14	E601	1.4	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	29	<0.5
PTU10-I	16-SEP-14	E601	1.4	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	31	<0.5
PTU10-E	15-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-HPD (cont.)													
PTU10-E	11-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	16-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-S													
PTU2-I	07-JUL-14	E624	<1	1.9	<1	<1	3.3	<1	1.1	5.5	<1	42	<1
PTU2-I	11-AUG-14	E601	<0.5	2.5	<0.5	<0.5	3.3	<1	1	5.2	<0.5	41	<0.5
PTU2-I	03-SEP-14	E601	0.59	2.4	<0.5	<0.5	3.3	<1	1.1	5.3	<0.5	46	<0.5
PTU2-E	07-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	11-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	03-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SE													
PTU11-I	09-JUL-14	E601	<0.5	3	0.54	1.1	7.3	<1	0.72	23	<0.5	79	<0.5
PTU11-I	06-AUG-14	E601	<0.5	3.1	0.7	1.2	9.1	<1	0.71	26	<0.5	87	<0.5
PTU11-I	04-SEP-14	E601	<0.5	3	0.73	1.1	8.3	<1	0.83	23	<0.5	81	<0.5
PTU11-E	09-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	06-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	04-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SS													
PTU12-I	02-JUL-14	E601	1.6	2.1	0.59	1.9	9.9	<1	0.5	20	<0.5	110	3.4
PTU12-I	11-AUG-14	E601	1.4	2.1	0.59	2	9.3	<1	<0.5	19	<0.5	100	3.1
PTU12-I	09-SEP-14	E601	1.6	2	<0.5	1.3	6.6	<1	<0.5	12	<0.5	92	6.5
PTU12-E	02-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	11-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	09-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-W													
PTU6-I	16-JUL-14	E601	<0.5	5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.6	33
PTU6-I	11-AUG-14	E601	<0.5	5.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.6	31
PTU6-I	16-SEP-14	E601	<0.5	4.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3	30
PTU6-E	16-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	11-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	16-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-E													
PTU3-I	08-JUL-14	E601	<0.5	2.3	<0.5	<0.5	4.6	<1	6.6	3.4	<0.5	38	<0.5
PTU3-I	15-AUG-14	E601	<0.5	2.4	<0.5	<0.5	4.8	<1	6.4	3.6	<0.5	42	<0.5
PTU3-I	02-SEP-14	E601	<0.5	1.9	<0.5	<0.5	5.7	<1	5.8	7.5	<0.5	49	<0.5
PTU3-E	08-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	15-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	02-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-HS													
GTU07-I	17-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	8	2.5	13	<0.5	150	<0.5
GTU07-I	13-AUG-14	E624	3.5	1.9	<1	<1	4.4	1.9	2.4	7	<1	250	<1
GTU07-I	29-SEP-14	E601	4	1.9	<0.5	<0.5	4.6	1.8	2	5.2	<0.5	240	<0.5
GTU07-E	17-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	13-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	02-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	29-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-NW													
PTU9-I	10-JUL-14	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	1.2	0.59	<0.5	17	<0.5
PTU9-I	08-AUG-14	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	1	0.53	<0.5	15	<0.5
PTU9-I	04-SEP-14	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	1	0.5	<0.5	16	<0.5
PTU9-E	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	04-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SE													
W-359	02-JUL-14	E601	2.7	1.2	<0.5	<0.5	12	<1	5.6	6.8	<0.5	160	0.52
MTU04-I	11-AUG-14	E601	2.5	1.3	<0.5	<0.5	12	<1	5.4	6.2	<0.5	150	<0.5
MTU04-I	02-SEP-14	E601	2.4	1.4	<0.5	<0.5	11	<1	5.2	6	<0.5	150	<0.5
MTU04-E	02-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	11-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	02-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SW													
MTU03-I	14-JUL-14	E601	1.2	1.2	<0.5	<0.5	0.62	<1	0.67	1.3	<0.5	28	<0.5
MTU03-I	08-AUG-14	E601	1.6	1.4	<0.5	<0.5	0.7	<1	0.57	1.4	<0.5	38	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-SW (cont.)													
MTU03-I	17-SEP-14	E601	0.9	1	<0.5	<0.5	<0.5	<1	0.55	0.96	<0.5	18	<0.5
MTU03-E	14-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	17-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-W													
MTU05-I	14-JUL-14	E601	<0.5	0.94	<0.5	<0.5	1.4	<1	9.4	7	<0.5	27	<0.5
MTU05-I	08-AUG-14	E601	<0.5	0.91	<0.5	<0.5	1.3	<1	8.2	6.2	<0.5	25	<0.5
MTU05-I	17-SEP-14	E601	<0.5	0.99	<0.5	<0.5	1.4	<1	9	6.2	<0.5	26	<0.5
MTU05-E	14-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	17-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-1													
W-1111	02-JUL-14	E601	3	9.5	<0.5	<0.5	0.87	<1	<0.5	0.98	<0.5	3.8	<0.5
GTU01-I	08-AUG-14	E601	2.9	8.8	<0.5	<0.5	0.74	<1	<0.5	1	<0.5	3.8	<0.5
GTU01-I	03-SEP-14	E601	3.1	9.2	<0.5	<0.5	0.77	<1	<0.5	1	<0.5	4.1	<0.5
GTU01-E	02-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	03-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-N													
MTU02-I	01-JUL-14	E601	<0.5	1.3	<0.5	<0.5	1.4	<1	1.3	17	<0.5	4.8	<0.5
MTU02-I	08-AUG-14	E601	<0.5	1.3	<0.5	<0.5	1.2	<1	1.1	15	<0.5	4.3	<0.5
MTU02-I	03-SEP-14	E601	<0.5	1.2	<0.5	<0.5	1.1	<1	1.1	15	<0.5	4.2	<0.5
MTU02-E	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	03-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406													
PTU5-I	16-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3	<0.5
PTU5-I	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.7	<0.5
PTU5-I	16-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.6	<0.5
PTU5-E	16-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF406 (cont.)													
PTU5-E	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	16-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406-NW													
W-1801	01-JUL-14	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	2.7	0.72	<0.5	17	<0.5
GTU03-I	08-AUG-14	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	2.4	0.67	<0.5	16	<0.5
GTU03-I	03-SEP-14	E601	<0.5	1.6	<0.5	<0.5	<0.5	<1	2.6	0.68	<0.5	19	<0.5
GTU03-E	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	03-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF518-N^b													
W-1410	14-JUL-14	E601	1.8	1.7	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	11	<0.5
TF5475-1^c													
W-1302-2	19-AUG-14	E601	2.2	35	1.4	4.7	21	<1	9.2	51	<0.5	350	<0.5
TF5475-2^d													
GTU09-I	28-AUG-14	E601	2.2	28	0.58	8.2	19	<1	6.1	41	<0.5	350	<0.5
GTU09-I	04-SEP-14	E601	1.4	14	<0.5	2.2	12	<1	4.2	24	<0.5	200	<0.5
GTU09-E	28-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	04-SEP-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF5475-3^e													
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Notes on following page.

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

^a TFD was sampled multiple times (after completing the installation of a new air stripper and performing routine compliance sampling) during the month of September.

^b TF518-N did not operate during this reporting period due to mixed waste disposition issues.

^c TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

^d TF5475-2 remained offline during the months of July and August due to a pump failure at W-1108.

^e TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
W-109	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	0.55	1	<0.5	<0.5	<0.5
W-262	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-404	10-JUL-14	E601	<0.5	<0.5	0.62	<0.5	0.89	<1	<0.5	4.4	<0.5	<0.5	<0.5
W-408	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.52	<0.5	<0.5	<0.5
W-415	10-JUL-14	E601	<0.5	1.4	0.52	<0.5	1.2	<1	<0.5	11	<0.5	0.97	<0.5
W-457	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	0.54	<1	<0.5	5	<0.5	<0.5	<0.5
W-518	10-JUL-14	E601	<0.5	<0.5	5.2	<0.5	2.8	<1	<0.5	4.3	<0.5	<0.5	<0.5
W-522	10-JUL-14	E601	<0.5	<0.5	1.2	<0.5	0.89	<1	<0.5	2.8	<0.5	<0.5	<0.5
W-605	10-JUL-14	E601	<0.5	<0.5	0.59	<0.5	0.74	<1	<0.5	12	<0.5	0.54	<0.5
W-614	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	4.5	<0.5	<0.5	<0.5
W-712	10-JUL-14	E601	2.8	2.8	1	<0.5	3.3	<1	<0.5	2.1	<0.5	3.1	<0.5
W-714	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	6.1	<0.5	<0.5	<0.5
W-903	10-JUL-14	E601	<0.5	<0.5	0.75	<0.5	0.66	<1	<0.5	4.4	<0.5	<0.5	<0.5
W-904	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	0.65	<1	<0.5	4.7	<0.5	<0.5	<0.5
W-1001	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	1.9	<0.5	<0.5	<0.5
W-1009	10-JUL-14	E601	1	4.2	0.61	<0.5	2.6	<1	0.53	10	<0.5	1.7	<0.5
TFA-E													
W-254 ^a	29-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	20	<0.5	0.5	<0.5
W-1214	08-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	4.9	<0.5	<0.5	<0.5
TFB													
W-357	02-JUL-14	E601	1.4	2.7	<0.5	<0.5	1.4	<1	4.2	1.2	<0.5	32	<0.5
W-610	02-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	0.69	<1	0.83	0.52	<0.5	1.2	<0.5
W-620	02-JUL-14	E601	<0.5	0.74	<0.5	<0.5	0.75	<1	1.2	0.9	<0.5	2.8	<0.5
W-621	14-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.1	<0.5
W-655	14-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	6.3	<0.5	<0.5	0.59	<0.5
W-704	02-JUL-14	E601	0.57	3.6	<0.5	<0.5	1.9	<1	6.2	2.4	<0.5	16	<0.5
W-1423	02-JUL-14	E601	0.76	4.3	<0.5	<0.5	2.9	<1	3	1.8	<0.5	8.3	<0.5
W-2501	02-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	1.4	<0.5	<0.5	4.4	<0.5
W-2502	02-JUL-14	E601	0.61	2.6	<0.5	<0.5	1.5	<1	0.52	<0.5	<0.5	2.3	<0.5
TFC													
W-701	01-JUL-14	E601	<0.5	2.1	<0.5	<0.5	1.6	<1	24	1.9	<0.5	17	<0.5
W-1015	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	0.53	<1	1.4	1.2	<0.5	4.8	<0.5
W-1102	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	2.9	<0.5	<0.5	1.4	<0.5
W-1103	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	0.82	<0.5
W-1104	01-JUL-14	E601	<0.5	0.63	<0.5	<0.5	<0.5	<1	2.4	4.8	<0.5	8.9	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC (cont.)													
W-1116	01-JUL-14	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	5.3	3.3	<0.5	6.5	<0.5
TFC-E													
W-368	09-JUL-14	E601	<0.5	3.1	<0.5	<0.5	<0.5	<1	12	2.5	<0.5	10	1.6
W-413	09-JUL-14	E601	<0.5	13	<0.5	<0.5	0.75	<1	8	<0.5	<0.5	6.9	3.7
TFC-SE													
W-1213	05-AUG-14	E601	<0.5	7.7	<0.5	<0.5	3.2	<1	6.2	<0.5	<0.5	20	<0.5
W-2201	05-AUG-14	E601	<0.5	6.1	<0.5	<0.5	1	<1	16	0.78	<0.5	13	1.3
TFD													
W-351	01-JUL-14	E601	29	4.7	<0.5	0.88	6.9	<1	5.4	6.7	<0.5	550	1.1
W-653	01-JUL-14	E601	17	4.8	<0.5	<0.5	0.57	<1	2.3	0.67	<0.5	490	<0.5
W-906	01-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.4	<0.5
W-907-2	01-JUL-14	E601	<0.5	3.4	<0.5	<0.5	2.5	<1	1.4	5.2	<0.5	49	<0.5
W-2011	01-JUL-14	E601	0.71	0.68	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	17	<0.5
W-2101	01-JUL-14	E601	4.2	1.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	130	<0.5
W-2102	01-JUL-14	E601	12	3.7	<0.5	<0.5	<0.5	<1	1.5	<0.5	<0.5	350	0.74
W-1206	01-JUL-14	E601	0.72	3.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	12	<0.5
W-1208	01-JUL-14	E601	1.8	1.7	<0.5	<0.5	<0.5	<1	<0.5	0.66	<0.5	37	24
TFD-E													
W-2006	06-AUG-14	E601	1	2	3	9	96	1.4	<0.5	96	<0.5	390	<0.5
W-1301	06-AUG-14	E601	8.3	2.7	1.5	4.8	39	<1	0.76	29	<0.5	180	<0.5
W-1303	06-AUG-14	E601	3.1	1.9	<0.5	1.2	3.2	<1	<0.5	4	<0.5	90	5
W-1306	06-AUG-14	E601	1.5	1.4	<0.5	<0.5	<0.5	<1	<0.5	2	<0.5	42	<0.5
W-1307	06-AUG-14	E601	2.3	0.56	<0.5	<0.5	<0.5	<1	<0.5	0.56	<0.5	29	<0.5
W-1550	06-AUG-14	E601	5.2	4.3	<0.5	<0.5	0.53	<1	<0.5	1.6	<0.5	120	<0.5
W-2203	06-AUG-14	E601	7.9	2.5	<0.5	<0.5	1.5	<1	1.6	5.2	<0.5	96	<0.5
TFD-HPD													
W-1254	15-JUL-14	E601	1.4	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	32	<0.5
W-1650	06-AUG-14	E601	0.88	1.7	<0.5	<0.5	<0.5	3.5	0.87	<0.5	<0.5	80	<0.5
W-1653	06-AUG-14	E601	<0.5	0.56	<0.5	<0.5	<0.5	7.9	<0.5	<0.5	<0.5	30	<0.5
W-1655	06-AUG-14	E601	<0.5	0.86	<0.5	<0.5	<0.5	<1	<0.5	0.84	<0.5	28	<0.5
W-1657	06-AUG-14	E601	7.6	3.4	<0.5	<0.5	<0.5	<1	2.4	<0.5	<0.5	690	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-S													
W-1503	07-JUL-14	E601	1.1	1.3	<0.5	<0.5	0.81	<1	<0.5	1.2	<0.5	31	<0.5
W-1504	07-JUL-14	E601	<0.5	0.54	<0.5	<0.5	8.3	<1	2.2	13	<0.5	58	<0.5
W-1510	07-JUL-14	E601	<0.5	1.1	<0.5	<0.5	4.4	<1	1	8.2	<0.5	55	<0.5
W-2601	07-JUL-14	E601	<0.5	6.7	<0.5	<0.5	1.2	<1	0.77	3	<0.5	30	<0.5
TFD-SE													
W-314	09-JUL-14	E601	<0.5	1.4	<0.5	<0.5	2.2	<1	0.54	4.3	<0.5	29	<0.5
W-2005	09-JUL-14	E601	0.57	0.69	<0.5	1.4	15	<1	<0.5	40	<0.5	80	<0.5
W-1308	09-JUL-14	E601	<0.5	1.1	0.69	2.2	12	<1	<0.5	61	<0.5	86	<0.5
W-1403	09-JUL-14	E601	2.2	16	1.1	4.6	33	<1	3.8	85	<0.5	330	<0.5
W-1904 ^a	02-JUN-14	E601	<0.5	<0.5	<0.5	<0.5	1.4	<1	<0.5	13	<0.5	6	<0.5
SIP-ETC-201 ^a	05-FEB-14	E601	<0.5	0.58	2	0.83	61	<1	<0.5	330	<0.5	190	<0.5
TFD-SS													
W-1523	02-JUL-14	E601	2.9	2.5	<0.5	1.2	8.3	<1	0.92	13	<0.5	110	<0.5
W-1601	02-JUL-14	E601	2.9	3.3	1.1	4.9	19	<1	0.91	76	<0.5	210	<0.5
W-1602	02-JUL-14	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	<0.5	1.3	<0.5	8.3	1.1
W-1603	02-JUL-14	E601	0.89	1.9	0.74	2.7	9.2	<1	<0.5	19	<0.5	110	4.6
TFD-W													
W-1215	16-JUL-14	E601	<0.5	8.6	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.1	16
W-1216	16-JUL-14	E601	<0.5	4.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.2	24
W-1902	16-JUL-14	E601	<0.5	3.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.2	48
TFE-E													
W-566	08-JUL-14	E601	<0.5	2.5	<0.5	<0.5	4.8	<1	7	3.6	<0.5	39	<0.5
W-1109	26-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	5.9	<1	1.7	13	<0.5	45	<0.5
W-1903	08-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	11	<1	3.4	12	<0.5	25	<0.5
W-1909 ^a	14-NOV-11	E601	<0.5	<0.5	<0.5	<0.5	9.1	1.1	<0.5	5.4	<0.5	6.5	<0.5
W-2305	26-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	18	<1	6.5	26	<0.5	48	<0.5
TFE-HS													
W-2105	17-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	0.58	3.5	2.4	12	<0.5	140	<0.5
W-2801	27-AUG-14	E601	3.8	2.1	<0.5	<0.5	5.1	2	2.4	5.9	<0.5	260	<0.5
TFE-NW													
W-1211	10-JUL-14	E601	<0.5	1.5	<0.5	<0.5	<0.5	<1	1.5	<0.5	<0.5	7.9	<0.5
W-1409	10-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	0.6	<1	0.61	1.9	<0.5	41	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-SE													
W-359	02-JUL-14	E601	2.7	1.2	<0.5	<0.5	12	<1	5.6	6.8	<0.5	160	0.52
TFE-SW													
W-1516	14-JUL-14	E601	0.53	0.9	<0.5	<0.5	<0.5	<1	0.73	<0.5	<0.5	8.4	<0.5
W-1518	14-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	1.4	1.2	2.1	0.82	<0.5	10	<0.5
W-1520	14-JUL-14	E601	6.5	3.9	<0.5	1.8	1.3	1.2	<0.5	8	<0.5	140	<0.5
W-1522	14-JUL-14	E601	9	4.8	<0.5	1.7	5	5.3	0.64	8.1	<0.5	210	<0.5
TFE-W													
W-292	14-JUL-14	E601	<0.5	0.74	<0.5	<0.5	0.79	2	1.2	1.3	<0.5	18	<0.5
W-305	14-JUL-14	E601	<0.5	1	<0.5	<0.5	1.8	<1	14	9.9	<0.5	33	0.59
TFG-1													
W-1111	02-JUL-14	E601	3	9.5	<0.5	<0.5	0.87	<1	<0.5	0.98	<0.5	3.8	<0.5
TFG-N													
W-1806	01-JUL-14	E601	<0.5	0.66	<0.5	<0.5	<0.5	<1	<0.5	8.5	<0.5	2.3	<0.5
W-1807	01-JUL-14	E601	<0.5	1.5	<0.5	<0.5	1.6	<1	1.5	19	<0.5	5.3	<0.5
TF406													
W-1309	16-JUL-14	E601	0.54	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.5	<0.5
W-1310	16-JUL-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3	<0.5
TF406-NW													
W-1801	01-JUL-14	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	2.7	0.72	<0.5	17	<0.5
TF518-N^b													
W-1410	14-JUL-14	E601	1.8	1.7	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	11	<0.5
TF518-PZ													
W-1615	27-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	3.1	<1	<0.5	37	<0.5	180	<0.5
W-518-1913 ^a	23-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	0.76	<1	<0.5	3.8	<0.5	29	<0.5
W-518-1914	27-AUG-14	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	28	<0.5	3.8	<0.5
W-518-1915	27-AUG-14	E601	<0.5	0.76	<0.5	<0.5	1.6	<1	<0.5	48	<0.5	280	<0.5
SVB-518-201 ^a	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	35	<0.5	8.5	<0.5
SVB-518-204 ^a	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF5475-1^b													
W-1302-2	19-AUG-14	E601	2.2	35	1.4	4.7	21	<1	9.2	51	<0.5	350	<0.5
TF5475-2													
W-1108	28-AUG-14	E601	2.2	27	0.53	7.8	18	<1	6	41	<0.5	350	<0.5
W-1415	04-SEP-14	E601	1.4	14	<0.5	2.2	12	<1	4.2	24	<0.5	210	<0.5
TF5475-3^b													
W-1604	19-AUG-14	E601	5.8	87	2.2	20	43	2.8	14	110	<0.5	1000	<0.5
W-1605	06-AUG-14	E601	<0.5	6.7	<0.5	1.1	<0.5	<1	<0.5	1	<0.5	13	<0.5
W-1608	06-AUG-14	E601	<0.5	3.5	<0.5	0.64	<0.5	<1	<0.5	0.58	<0.5	7.7	<0.5
W-1609 ^a	28-APR-14	E601	<0.5	37	0.66	2.8	5.4	<1	0.71	14	<0.5	110	<0.5

Notes on following page.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

^a Most recent VOC sample results available.

^b Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTFD-ETCS													
W-1904	15-JUL-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.013	<0.005	<0.005	0.16	<0.005	0.067	<0.005
W-ETC-2003	15-JUL-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.072	<0.005	0.02	<0.005
W-ETC-2004A	15-JUL-14	TO15DIT	<0.005	0.0051	<0.005	<0.005	<0.005	<0.005	<0.005	0.17	<0.005	0.054	<0.005
W-ETC-2004B	15-JUL-14	TO15DIT	<0.005	0.012	0.0068	<0.005	0.091	<0.005	<0.005	0.36	<0.005	1.2	<0.005
SIP-ETC-201	15-JUL-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	0.13	<0.005	0.15	<0.005
VTFE-ELM^a													
W-1903 ^b	05-MAY-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.53	<0.005	0.14	0.46	<0.005	1.1	<0.005
W-1909 ^b	06-OCT-11	TO15DIT	<0.005	0.034	<0.005	<0.005	0.51	<0.005	0.054	0.88	<0.005	1.2	<0.005
W-2305 ^b	06-OCT-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.2	<0.005	0.036	0.46	<0.005	0.55	<0.005
W-543-001	24-SEP-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.02	<0.005	<0.005	0.38	<0.005	0.075	<0.005
W-543-003	24-SEP-14	TO15DIT	<0.005	0.014	<0.005	<0.005	0.094	<0.005	0.006	0.11	<0.005	0.34	<0.005
W-543-1908	24-SEP-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.023	<0.005	0.0056	0.057	<0.005	0.2	<0.005
VTFE-HS													
W-2105	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	0.021	<0.01	0.15	0.19	<0.01	1.5	<0.01
W-ETS-2008A	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	0.014	<0.01
W-ETS-2008B	03-SEP-14	TO15DIT	<0.011	0.014	<0.011	<0.011	0.014	<0.011	0.022	0.52	<0.011	0.71	<0.011
W-ETS-2009	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.065	<0.01	0.18	<0.01
W-ETS-2010A	03-SEP-14	TO15DIT	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.086	<0.011	0.089	<0.011
W-ETS-2010B	03-SEP-14	TO15DIT	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
VTF406-HS													
W-217	15-JUL-14	TO15DIT	0.1	0.041	0.0084	<0.005	0.64	0.023	0.14	0.44	<0.005	1.6	0.007
W-514-2007A	15-JUL-14	TO15DIT	0.023	<0.005	<0.005	<0.005	0.012	<0.005	0.18	0.021	<0.005	0.075	2.7
W-514-2007B	15-JUL-14	TO15DIT	0.05	0.022	<0.005	<0.005	0.28	<0.005	0.04	0.15	<0.005	0.61	0.028
VTF511													
W-2204	17-SEP-14	TO15DIT	0.085	0.024	<0.012	0.02	0.022	<0.012	<0.012	0.5	<0.012	5.2	<0.012
W-2205	17-SEP-14	TO15DIT	0.064	0.01	<0.005	<0.005	0.03	<0.005	<0.005	0.12	<0.005	1.8	<0.005
W-2206	17-SEP-14	TO15DIT	0.0065	0.006	<0.005	0.014	<0.005	<0.005	<0.005	0.12	<0.005	0.94	<0.005
W-2207A	15-SEP-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	0.19	<0.005
W-2207B	15-SEP-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0079	<0.005	0.82	<0.005
W-2208A	15-SEP-14	TO15DIT	0.03	0.015	<0.005	<0.005	0.024	<0.005	0.0073	0.018	<0.005	3	0.032
W-2208B	15-SEP-14	TO15DIT	0.097	0.084	0.043	0.033	0.52	0.14	0.1	0.35	<0.012	11	0.11
VTF518-PZ													
W-1615	03-SEP-14	TO15DIT	<0.013	<0.013	<0.013	<0.013	0.27	<0.013	0.045	3.6	<0.013	8.9	<0.013
W-518-1913	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTF518-PZ (cont.)													
W-518-1914	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.4	<0.01	0.11	<0.01
W-518-1915	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	0.024	<0.01	<0.01	4	<0.01	0.98	<0.01
SVB-518-201	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.023	<0.01	0.024	<0.01
SVB-518-204	03-SEP-14	TO15DIT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.089	<0.01	0.36	<0.01
VTF5475^c													
W-1605	22-SEP-14	TO15DIT	<0.005	0.035	<0.005	<0.005	0.011	<0.005	<0.005	0.0076	<0.005	0.11	<0.005
W-1608	22-SEP-14	TO15DIT	<0.005	0.03	<0.005	<0.005	0.016	<0.005	0.012	0.0065	<0.005	0.068	<0.005
W-2211	24-SEP-14	TO15DIT	<0.005	0.048	<0.005	<0.005	0.046	<0.005	0.012	0.015	<0.005	0.12	<0.005
W-2212	24-SEP-14	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.012	<0.005
W-ETS-507	23-SEP-14	TO15DIT	<0.005	1	<0.005	0.047	0.0093	<0.005	<0.005	0.19	<0.005	0.77	<0.005
W-2302	24-SEP-14	TO15DIT	0.012	0.1	<0.005	0.0054	0.37	<0.005	0.081	0.12	<0.005	1.7	<0.005
W-2303	24-SEP-14	TO15DIT	<0.005	0.32	0.014	0.022	0.11	<0.005	0.0091	0.11	<0.005	0.9	<0.005
SVI-ETS-504	23-SEP-14	TO15DIT	<0.005	0.15	<0.005	<0.005	0.05	<0.005	<0.005	0.075	<0.005	0.34	<0.005

Notes on following page.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

^a VTFE-ELM did not operate during the month of August and most of September due to a failed vacuum pump.

^b Most recent VOC vapor sample results available.

^c VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total) ^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFA	TFA-I001	02-JUL-14	0.014	NA
	TFA-E001	02-JUL-14	0.014	NA
TFA-E	STU06-I	07-JUL-14	0.0049	NA
	STU06-E	07-JUL-14	<0.001	NA
TFB	TFB-I002	02-JUL-14	0.02	NA
	TFB-E002	02-JUL-14	0.02	NA
	TFB-E002	04-AUG-14	0.019	NA
	TFB-E002	02-SEP-14	0.021	NA
	TFB-R002	02-JUL-14	0.016	NA
TFC	TFC-I003	01-JUL-14	0.023	NA
	TFC-E003	01-JUL-14	0.025	NA
	TFC-E003	04-AUG-14	0.023	NA
	TFC-E003	02-SEP-14	0.023	NA
	TFC-R003	01-JUL-14	0.0069	NA
TFC-E	MTU1-I	09-JUL-14	0.04	NA
	MTU1-E	09-JUL-14	0.042	NA
	MTU1-E	06-AUG-14	0.036	NA
	MTU1-E	04-SEP-14	0.039	NA
TFC-SE	PTU1-I	07-JUL-14	0.036	NA
	PTU1-E	07-JUL-14	0.035	NA
	PTU1-E	04-AUG-14	0.036	NA
	PTU1-E	03-SEP-14	0.035	NA
TFD	TFD-I004	01-JUL-14	0.012	NA
	TFD-E004	01-JUL-14	0.012	NA
	TFD-E004	30-SEP-14	0.011	0.0092
TFD-E	PTU8-I	09-JUL-14	0.0071	NA
	PTU8-E	09-JUL-14	0.0069	NA
TFD-HPD	PTU10-I	15-JUL-14	0.014	NA
	PTU10-E	15-JUL-14	0.014	NA
TFD-S	PTU2-I	07-JUL-14	0.012	NA
	PTU2-E	07-JUL-14	0.012	NA
TFD-SE	PTU11-I	09-JUL-14	0.011	NA
	PTU11-E	09-JUL-14	0.011	NA
TFD-SS	PTU12-I	02-JUL-14	0.012	NA
	PTU12-E	02-JUL-14	0.012	NA
TFD-W	PTU6-I	16-JUL-14	0.012	NA
	PTU6-E	16-JUL-14	0.012	NA
TFE-E	PTU3-I	08-JUL-14	0.011	NA
	PTU3-E	08-JUL-14	0.011	NA
TFE-HS	GTU07-I	17-JUL-14	0.0051	NA
	GTU07-E	17-JUL-14	<0.001	NA
TFE-NW	PTU9-I	10-JUL-14	0.012	NA

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total)^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFE-NW (cont.)				
	PTU9-E	10-JUL-14	0.012	NA
TFE-SE	W-359	02-JUL-14	0.0085	NA
	MTU04-E	02-JUL-14	0.0085	NA
TFE-SW	MTU03-I	14-JUL-14	0.014	NA
	MTU03-E	14-JUL-14	0.011	NA
TFE-W	MTU05-I	14-JUL-14	0.012	NA
	MTU05-E	14-JUL-14	0.012	NA
TFG-1	W-1111	02-JUL-14	0.0083	NA
	GTU01-E	02-JUL-14	<0.001	NA
	TFG-ASW	02-JUL-14	0.013	NA
TFG-N	MTU02-I	01-JUL-14	0.0077	NA
	MTU02-E	01-JUL-14	0.0079	NA
TF406	PTU5-I	16-JUL-14	0.015	NA
	PTU5-E	16-JUL-14	0.015	NA
TF406-NW	W-1801	01-JUL-14	0.0016	NA
	GTU03-E	01-JUL-14	<0.001	NA
TF5475-2	GTU09-I	28-AUG-14	0.013	NA
	GTU09-E	28-AUG-14	<0.001	NA

^aA discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

Table A-5. Bioassay, turbidity, and chloride analyses of effluent samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Aquatic Bioassay^a Percent Survival	Turbidity Nephelometric Turbidity Units (NTU)	Chloride (mg/L)
TFA	TFA-E001	02-JUL-14	100 (100)	NA	NA
TFA-E	STU06-E	07-JUL-14	100 (100)	NA	NA
TFB	TFB-E002	02-JUL-14	100 (100)	NA	NA
TFC	TFC-E003	01-JUL-14	100 (100)	NA	NA
TFC-E	MTU1-E	09-JUL-14	100 (100)	NA	NA
TFC-SE	PTU1-E	07-JUL-14	100 (100)	NA	NA
TFD	TFD-E004	01-JUL-14	100 (100)	NA	NA
	TFD-E004	30-SEP-14	100 (100)	0.13	300
TFD-E	PTU8-E	09-JUL-14	100 (100)	NA	NA
TFD-HPD	PTU10-E	15-JUL-14	100 (100)	NA	NA
TFD-S	PTU2-E	07-JUL-14	100 (100)	NA	NA
TFD-SE	PTU11-E	09-JUL-14	100 (100)	NA	NA
TFD-SS	PTU12-E	02-JUL-14	100 (100)	NA	NA
TFD-W	PTU6-E	16-JUL-14	100 (100)	NA	NA
TFE-E	PTU3-E	08-JUL-14	100 (100)	NA	NA
TFE-HS	GTU07-E	17-JUL-14	100 (100)	NA	NA
TFE-NW	PTU9-E	10-JUL-14	100 (100)	NA	NA
TFE-SE	MTU04-E	02-JUL-14	100 (100)	NA	NA
TFE-SW	MTU03-E	14-JUL-14	100 (100)	NA	NA
TFE-W	MTU05-E	14-JUL-14	100 (100)	NA	NA
TFG-1	GTU01-E	02-JUL-14	100 (100)	NA	NA
TFG-N	MTU02-E	01-JUL-14	100 (100)	NA	NA
TF406	PTU5-E	16-JUL-14	100 (100)	NA	NA
TF406-NW	GTU03-E	01-JUL-14	100 (100)	NA	NA
TF5475-2	GTU09-E	28-AUG-14	100 (100)	NA	NA

^aTest species was Fathead minnow and the test duration was 96 hours.
Percent survival in the control group samples shown in parentheses.

Note: NA = not applicable

Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

Explanation of Abbreviations

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

Attachment B

Self-Monitoring Reports

Self-Monitoring Report LLNL Treatment Facility A (TFA) AREA TFA

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 719

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-02-2014
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 20.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	1,088	0.0
W-262	396	0.0
W-457	397,360	9.1
W-404	1,347,524	31.6
W-408	469,200	11.2
W-415	1,699,168	41.5
W-605	328,375	8.9
W-518	187,514	4.4
W-522	597,056	14.0
W-614	476,188	11.2
W-1001	69,790	1.7
W-1004	448,104	10.6
W-1009	981,424	23.1
W-712	264,942	6.6
W-714	309,128	7.2
W-903	589,296	14.0
W-904	996,384	25.0
Total:	<u>9,162,937</u>	<u>220.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,856,836</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

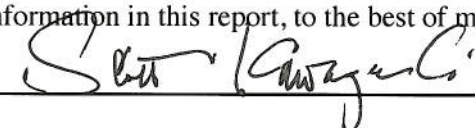
TFG-ASW

4,306,101

6. Comments:

Facility secured on 6-30-14 for maintenance. Restarted on 7-1-14. W-605 down on 7-25-14 due to flow meter failure. W-605 was restarted on 7-28-145.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-03-2014

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 706

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2014
 Influent pH: 7.5
 Effluent pH: 7.5
 Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	0	0.0
W-262	0	0.0
W-404	1,335,704	31.5
W-408	471,448	11.2
W-415	1,624,864	41.1
W-457	372,944	9.8
W-605	366,888	8.9
W-518	183,998	4.4
W-522	601,008	14.4
W-614	462,048	11.2
W-1001	70,078	1.6
W-1004	437,264	10.5
W-1009	953,344	23.0
W-712	257,879	6.3
W-714	304,793	7.3
W-903	552,240	13.5
W-904	863,936	22.7
Total:	<u>8,858,436</u>	<u>217.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,703,349</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

4,155,087

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Taragoni Date: 09-03-2014

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																				
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>							

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-02-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	0	0.0
W-262	358	0.0
W-404	1,485,934	31.6
W-408	523,440	11.5
W-415	1,834,592	40.9
W-457	377,784	8.1
W-518	202,764	4.4
W-522	675,136	14.5
W-605	346,661	8.6
W-614	505,324	11.7
W-712	245,467	6.1
W-714	295,423	7.4
W-903	581,784	12.6
W-904	873,584	19.3
W-1001	62,714	1.6
W-1004	478,344	10.9
W-1009	1,060,192	23.4
Total:	<u>9,549,501</u>	<u>212.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>5,054,352</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

4,495,149

6. Comments:

W-605, W-712, W-714 down on 8-29-14 due to flow meter failures. Restarted
W-605, W-712, W-714 on 9-2-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shir Kawaguchi Date: 10-03-2014

Self-Monitoring Report

LLNL Solar Treatment Unit 06 (STU06)

AREA TFA-E

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **754**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **07-07-2014**
 Influent pH: **7.0**
 Effluent pH: **7.5**
 Effluent Temperature (°C): **18.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	0	0.0
W-1214	21,439	0.5
Total:	<u>21,439</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>21,439</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-01-2014**

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 707

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2014
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 19.1

4. Wellfield Data:

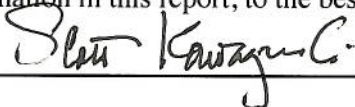
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	0	0.0
W-1214	20,095	0.5
Total:	<u>20,095</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>20,095</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2014

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																												
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 780

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-03-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>17.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	<u>0</u>	<u>0.0</u>
W-1214	<u>22,089</u>	<u>0.5</u>
Total:	<u>22,089</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>22,089</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Keweenaw Co. Date: 10-03-2014

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): **755**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **07-02-2014**
 Influent pH: **7.5**
 Effluent pH: **7.5**
 Effluent Temperature (°C): **21.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	364,592	8.2
W-610	292,816	6.5
W-620	221,796	5.1
W-621	88	0.0
W-655	26	0.0
W-704	785,424	17.2
W-1423	148,048	3.4
W-2501	698,894	16.2
W-2502	223,821	5.3
Total:	<u>2,735,505</u>	<u>61.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,021,808</u>
<u>Building 133 Cooling Tower</u>	<u>TFB-E-B133CT</u>	<u>713,697</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility B (TFB)
AREA TFB

Operator Signature: Sam Kuznetsov Date: 08-01-2014

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month July Year 2014

2. Date compliance sampling performed 07-02-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.03</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

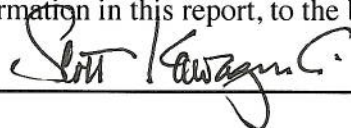
Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-06-2014

Self-Monitoring Report

LLNL Treatment Facility B (TFB)

AREA TFB

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **706**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-01-2014**
 Influent pH: **7.5**
 Effluent pH: **7.5**
 Effluent Temperature (°C): **20.9**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	283,528	8.1
W-610	258,464	6.7
W-620	165,172	4.1
W-621	0	0.0
W-655	0	0.0
W-704	606,760	17.6
W-1423	136,128	3.3
W-2501	605,158	15.9
W-2502	201,864	4.6
Total:	<u>2,257,074</u>	<u>60.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>1,482,194</u>
<u>Building 133 Cooling Tower</u>	<u>TFB-E-B133CT</u>	<u>774,880</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility B (TFB)
AREA TFB

Operator Signature: Steve Kawaguchi Date: 09-02-2014

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month August Year 2014

2. Date compliance sampling performed 08-04-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>23.13</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Stot / Garza C. Date: 09-05-2014

Self-Monitoring Report

LLNL Treatment Facility B (TFB)

AREA TFB

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																	
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 779

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-02-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	371,632	8.7
W-610	290,092	6.2
W-620	182,592	3.9
W-621	0	0.0
W-655	90	0.0
W-704	809,504	17.5
W-1423	146,327	3.1
W-2501	724,708	16.3
W-2502	213,519	4.7
Total:	<u>2,738,464</u>	<u>60.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>1,794,590</u>
<u>Building 133 Cooling Tower</u>	<u>TFB-E-B133CT</u>	<u>943,874</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility B (TFB)
AREA TFB

Operator Signature:  Date: **10-03-2014**

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month September Year 2014

2. Date compliance sampling performed 09-02-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>22.32</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-06-2014

Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 755

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-01-2014
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 21.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	621,840	14.3
W-1015	64	0.0
W-1102	36	0.0
W-1103	44	0.0
W-1104	1,214,960	27.9
W-1116	65,410	1.5
Total:	<u>1,902,354</u>	<u>43.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,902,354</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 08-01-2014

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month July Year 2014

2. Date compliance sampling performed 07-01-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.66</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>7/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 08-06-2014

**Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC**

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 707

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2014
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	568,392	13.6
W-1015	0	0.0
W-1102	0	0.0
W-1103	0	0.0
W-1104	353,504	27.3
W-1116	63,293	1.4
Total:	<u>985,189</u>	<u>42.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>985,189</u>

6. Comments:

W-1104 down on 8-9-14 due to pump failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 09-02-2014

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month August Year 2014

2. Date compliance sampling performed 08-04-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>23.13</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2014

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																								
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 779

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-02-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	623,192	13.6
W-1015	0	0.0
W-1102	0	0.0
W-1103	0	0.0
W-1104	0	0.0
W-1116	74,784	1.6
Total:	<u>697,976</u>	<u>15.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>697,976</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-03-2014**

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month September Year 2014

2. Date compliance sampling performed 09-02-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>22.32</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-06-2014

Self-Monitoring Report

LLNL Mini Treatment Unit 1 (MTU1)

AREA TFC-E

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>																
July	<u>01</u>	02	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 765

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-09-2014
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 21.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	47,058	1.0
W-413	758,340	16.4
Total:	<u>805,398</u>	<u>17.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>805,398</u>

6. Comments:

Facility was down due to overload on Well 413, overload was adjusted.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-04-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 669

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-06-2014

Influent pH: 7.0

Effluent pH: 7.5

Effluent Temperature (°C): 22.8

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	39,730	1.0
W-413	664,726	16.6
Total:	<u>704,456</u>	<u>17.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>704,456</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-08-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>29</u>	<u>30</u>	<u>31</u>																
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 342

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-04-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	20,449	1.0
W-413	330,694	16.0
Total:	<u>351,143</u>	<u>17.0</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>351,143</u>

6. Comments:

Facility down for system upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31**

Total monthly time facility operated (hours): **754**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **07-07-2014**
Influent pH: **7.5**
Effluent pH: **7.5**
Effluent Temperature (°C): **21.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	86,871	1.9
W-2201	18,401	0.0
Total:	<u>105,272</u>	<u>1.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>105,272</u>

6. Comments:

W-2201 started on 7-8-14 for hydraulic test. W-2201 secured on 7-9-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-01-2014**

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 706

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-04-2014
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 20

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	82,195	2.0
W-2201	4,068	0.0
Total:	<u>86,263</u>	<u>2.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>86,263</u>

6. Comments:

W-2201 ran for sampling only.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																												
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 778

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-03-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>19.7</u>

4. Wellfield Data:

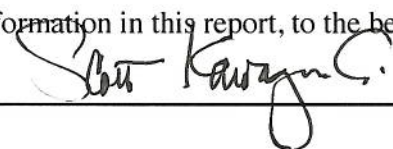
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	90,250	2.0
W-2201	0	0.0
Total:	<u>90,250</u>	<u>2.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>90,250</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2014

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 752

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	58,864	1.3
W-653	2,546	3.0
W-906	34	0.0
W-907-2	434,757	9.8
W-2011	5,479	3.0
W-2101	6,398	3.0
W-2102	12,247	3.0
W-1206	584,471	12.8
W-1208	1,001,883	22.6
Total:	<u>2,106,679</u>	<u>58.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,095,105</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>11,574</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: Shir Kawaguchi Date: 08-01-2014

Self-Monitoring Report

LLNL Treatment Facility D (TFD)

AREA TFD

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 483

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2014
 Influent pH: 7.5
 Effluent pH: 7.5
 Effluent Temperature (°C): 22.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	37,656	1.3
W-653	1,603	3.0
W-906	0	0.0
W-907-2	277,005	9.7
W-2011	3,479	3.0
W-1206	376,206	13.2
W-1208	639,610	22.5
W-2102	7,867	3.0
W-2101	4,064	3.0
Total:	<u>1,347,490</u>	<u>58.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,342,956</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>4,534</u>

6. Comments:

Facility was shutdown on 08-20-2014 for replacement of air stripper system.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: Scott Kawaguchi Date: 09-02-2014

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	30	31																												
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	<u>22</u>	23	24	25	26	27	28	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 5

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-30-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	423	1.3
W-653	115	3.0
W-906	0	0.0
W-907-2	3,198	9.7
W-2011	136	3.0
W-2101	196	3.0
W-2102	292	3.0
W-1206	3,874	12.0
W-1208	7,346	22.5
Total:	<u>15,580</u>	<u>57.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>15,580</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

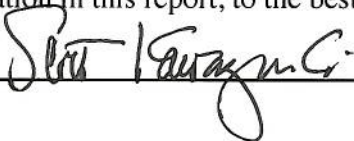
6. Comments:

Facility was restarted on 09-22-2014. Facility was shutdown on 09-22-2014.
 Facility was restarted on 09-29-2014. Facility was shutdown on 09-29-2014.
 Facility was restarted on 09-30-2014. Facility was shutdown on 09-30-2014. New

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

air stripper installed. Initial date of operation 9-22-14. Run in manned operation mode only.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-09-2014

Operator Signature: Robert VanDyke Date: 08-04-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** 03 **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **629**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-06-2014**
Influent pH: **7.0**
Effluent pH: **7.5**
Effluent Temperature (°C): **23.3**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	588	0.0
W-1301	18,970	0.5
W-1303	36,998	1.0
W-1306	4,125	0.0
W-1307	196,059	4.8
W-1550	9,396	0.2
W-2203	4,860	0.0
Total:	<u>270,996</u>	<u>6.5</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>270,996</u>

6. Comments:

Facility did not run on 8/3/14 due to discharge pump controller issues, settings were changed and system restarted. Facility was secured briefly on 8/23/14 and both carbon canister were changed out due to leaking water from bottom rings.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-08-2014**

Self-Monitoring Report
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>29</u>	<u>30</u>	<u>31</u>																
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 783

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-04-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	679	0.0
W-1301	29,133	0.6
W-1303	54,061	1.1
W-1306	6,286	0.0
W-1307	331,537	6.0
W-1550	11,010	0.2
W-2203	6,305	1.8
Total:	<u>439,011</u>	<u>9.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>439,011</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	05	06	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 722

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-15-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	161,646	3.3
Total:	<u>161,646</u>	<u>3.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>161,646</u>

6. Comments:

Facility was shutdown on 07-04-2014 at 21:58 due to facility low flow. Facility was restarted on 07-07-2014 at 08:21. Facility was shutdown on 07-15-2014 at 16:03 for annual interlock checks and maintenance work. Facility was restarted on 07-16-2014 at 10:13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty L. L. L. Date: 08-13-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	15		
	16	17	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>			

Total monthly time facility operated (hours): 641

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-11-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	156,569	2.6
Total:	<u>156,569</u>	<u>2.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>156,569</u>

6. Comments:

The facility shutdown on 08-14-2014 at 21:44 due to facility low flow. The facility was restarted on 08-18-2014 at 13:51.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 09-12-2014

Operator Signature: Betty Kubit Date: 10-20-2014

Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	08	09	10	11	12	13	14	15	
	16	17	<u>18</u>	19	20	<u>21</u>	22	23	24	25	26	27	28	29	<u>30</u>	

Total monthly time facility operated (hours): 222

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	564	3.8
W-1653	59	0.9
W-1655	184	2.2
W-1657	12	0.4
Total:	<u>819</u>	<u>7.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>819</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system but was not treated. Approximately 159.36 gals of facility water were diverted to the premixing tote (from 7/11 - 7/25). The facility did not operate for a number of days during the Control System Field Test(Gold System), tote filling operation, Larox pump injection operation, and during the time that maintenance work was being performed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)

LLNL ISB01 (ISB01)

AREA TFD-HPD

Operator Signature: Billy Fedil Date: 09-09-2014

**Self-Monitoring Report
LLNL ISB01 (ISB01)
AREA TFD-HPD**

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	31																		
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29					

Total monthly time facility operated (hours): 1

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	45	1.1
W-1653	28	0.3
W-1655	15	5.0
W-1657	0	0.0
Total:	<u>88</u>	<u>6.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>88</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system but was not treated. The startup of the facility occurred at 14:19 on 8-29-14. The facility was shut down at 15:31 on 8-29-14. The facility did not operate for most of the month until a new pump was installed in W-1653 and the SOP3.2 was performed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kridit Date: 09-24-2014

Self-Monitoring Report

LLNL ISB01 (ISB01)

AREA TFD-HPD

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	30	31																				
September	01	02	03	04	05	06	07	08	<u>09</u>	10	11	<u>12</u>	13	14	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>							

Total monthly time facility operated (hours): 355

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	584	3.1
W-1653	484	1.4
W-1655	0	0.0
W-1657	0	0.0
 Total:	<hr/> <u>1,068</u>	<hr/> <u>4.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>1,068</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system but was not treated. The facility did not operate for approximately 70.5 hrs for a variety of reasons: There was a leak that had to be fixed, the facility did not operate during the time of the incremental testing of the Gold System and interlock checks, on certain days the facility operated during manned hours, the facility did not always operate over the weekend, and the facility did not operate for several hours when the W-1657 FTsumL interlock was broken. At 10:24 on 9-10-14 approximately 7.36 gals of facility water were added to the premixing tote.

Self-Monitoring Report (cont'd)
LLNL ISB01 (ISB01)
AREA TFD-HPD

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. L. L. Date: 10-20-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 716

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-07-2014
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	375,024	11.9
W-1504	307,309	7.3
W-1510	131,144	3.2
W-2601	167,719	4.3
Total:	<u>981,196</u>	<u>26.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>981,196</u>

6. Comments:

System was secured for maintenance on 7/29/14 and restarted on 7/30/14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **696**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-01-2014**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.6**

4. Wellfield Data:

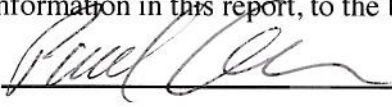
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	313,334	9.9
W-1504	294,049	7.0
W-1510	127,077	3.1
W-2601	218,499	6.4
Total:	<u>952,959</u>	<u>26.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>952,959</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-02-2014**

**Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S**

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																								
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	19	20	21	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 671

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-03-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	400,376	9.1
W-1504	294,449	7.3
W-1510	131,204	3.3
W-2601	214,769	4.8
Total:	<u>1,040,798</u>	<u>24.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,040,798</u>

6. Comments:

System secure from 9/18/14 to 9/22/14 for FY 14 Drainage Channel Maintenance and Invasive Species Control work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

Self-Monitoring Report

LLNL Portable Treatment Unit 11 (PTU11)

AREA TFD-SE

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 811

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-09-2014
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	222,324	4.6
W-2005	21,500	0.4
W-1308	47,977	0.9
W-1403	42,464	0.8
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>334,265</u>	<u>6.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>334,265</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Robert VanDyke Date: 08-04-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-06-2014**
Influent pH: **7.0**
Effluent pH: **7.5**
Effluent Temperature (°C): **21.7**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	170,231	3.9
W-2005	15,314	0.3
W-1308	37,951	1.0
W-1403	37,349	0.9
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>260,845</u>	<u>6.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>260,845</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-08-2014**

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>29</u>	<u>30</u>	<u>31</u>																	
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 792

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-04-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	234,284	4.3
W-2005	15,705	0.3
W-1308	55,062	1.1
W-1403	49,882	1.0
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>354,933</u>	<u>6.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>354,933</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

Self-Monitoring Report

LLNL Portable Treatment Unit 12 (PTU12)

AREA TFD-SS

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	12	13	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 670

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-02-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>19.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	209,612	5.1
W-1601	33,342	0.8
W-1602	94,884	2.4
W-1603	378,074	9.4
Total:	<u>715,912</u>	<u>17.7</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>715,912</u>

6. Comments:

Facility was shutdown on 07-11-2014 for repairs. Facility was restarted on 07-14-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **696**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-11-2014**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **20.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	210,346	5.4
W-1601	34,397	0.8
W-1602	97,338	2.3
W-1603	411,790	9.7
Total:	<u>753,871</u>	<u>18.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>753,871</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-02-2014**

Self-Monitoring Report

LLNL Portable Treatment Unit 12 (PTU12)

AREA TFD-SS

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																				
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>							
	<u>16</u>	<u>17</u>	<u>18</u>	19	20	21	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	27	28	29	<u>30</u>							

Total monthly time facility operated (hours): 495

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-09-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	152,701	5.1
W-1601	26,817	0.9
W-1602	75,101	2.5
W-1603	399,789	13.8
 Total:	<hr/> <u>654,408</u>	<hr/> <u>22.2</u>

5. Discharge Information:


<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>654,408</u>

6. Comments:

System secure from 9/18/14 to 9/22/14 for FY 14 Drainage Channel Maintenance and Invasive Species Control work. The facility was cycled several times for HMI and discharge pump testing on the following dates: Facility was restarted on 09-22-2014. Facility was shutdown on 09-22-2014. Facility was restarted on 09-23-2014. Facility was shutdown on 09-23-2014. Facility was restarted on 09-24-2014. Facility was shutdown on 09-24-2014. Facility was restarted on 09-25-2014. Facility was shutdown on 09-26-2014. Facility was restarted on 09-30-2014. Facility was shutdown on 09-30-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

Operator Signature:  Date: **10-01-2014**

Self-Monitoring Report

LLNL Portable Treatment Unit 6 (PTU6)

AREA TFD-W

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>														
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>		

Total monthly time facility operated (hours): 800

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-16-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	477,627	10.0
W-1216	481,926	10.2
W-1902	715,295	15.1
Total:	<u>1,674,848</u>	<u>35.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,674,848</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty K. Hild Date: 08-13-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	

Total monthly time facility operated (hours): 728

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-11-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	436,144	10.0
W-1216	433,950	10.1
W-1902	653,341	15.1
Total:	<u>1,523,435</u>	<u>35.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,523,435</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty L. L. L. Date: 09-12-2014

Operator Signature: Betty Kuhl Date: 10-20-2014

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treatment facility operated

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	29	<u>30</u>	<u>31</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	65	0.0	0	0	1
W-ETC-2003	287,145	6.2	-.39	64	781
SIP-ETC-201	10	0.0	0	0	0
W-ETC-2004A	48,995	1.1	-1.47	64	781
W-ETC-2004B	430,432	9.1	-1.36	64	781
Total:					
	<u>766,647</u>	<u>16.3</u>			

4. Comments:

Facility shutdown 6/28/14 at 07:10, attributed to high level in condensate collection tank. Facility was restarted 6/30/14 at 10:20. Quarterly vapor samples collected from idle and operating extraction wells 7/15/14. End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-27-2014

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	259,282	5.7	-.44	70	679
SIP-ETC-201	0	0.0	0	0	0
W-ETC-2004A	45,012	1.2	-1.74	70	679
W-ETC-2004B	397,271	10.5	-1.59	70	679
Total:	<u>701,565</u>	<u>17.4</u>			

4. Comments:

Facility was shutdown on 08-18-2014 at 10:30 to replace OPTO analog module at W-ETC-2003. Facility was restarted on 08-18-2014 at 11:50. End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-08-2014

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August	<u>29</u>	<u>30</u>	<u>31</u>																								
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>												
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>												

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	291,685	6.1	-.4	68	789
SIP-ETC-201	0	0.0	0	0	0
W-ETC-2004A	49,754	1.1	-1.52	68	789
W-ETC-2004B	453,563	9.5	-1.4	68	789
Total:	<u>795,002</u>	<u>16.8</u>			

4. Comments:

Facility was shutdown on 09-08-2014 at 12:20 due to high discharge separator level. Facility was restarted on 09-08-2014 at 15:30. Facility was shutdown on 09-26-2014 at 07:26 attributed to high discharge separator level. Facility was restarted on 09-26-2014 at 08:43. End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-13-2014

Self-Monitoring Report

LLNL Portable Treatment Unit 3 (PTU3)

AREA TFE-E

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>															
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 857

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-08-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	378,284	7.8
W-1109	0	0.0
W-2305	0	0.0
W-1903	10,835	0.0
W-1909	0	0.0
Total:	<u>389,119</u>	<u>7.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>389,119</u>

6. Comments:

W-1903 vacuum enhanced groundwater extraction secured 7/20/14 due to failure of VES 16.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-26-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** 09 10 11 12 13 **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **518**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-15-2014**

Influent pH: **7.0**

Effluent pH: **7.0**

Effluent Temperature (°C): **21.3**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	241,638	7.9
W-1109	6,041	0.0
W-1903	0	0.0
W-1909	0	0.0
W-2305	35	0.0
Total:	<u>247,714</u>	<u>7.9</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>247,714</u>

6. Comments:

Facility was shutdown on 08-06-2014 at 18:18. Facility was restarted on 08-07-2014 at 13:32. Facility was shutdown on 08-08-2014 at 18:21 Facility was restarted on 08-14-2014 at 09:10. Shutdowns triggered by erroneous flow meter failure alarms associated with W-1109 upgrade.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-04-2014**

Self-Monitoring Report

LLNL Portable Treatment Unit 3 (PTU3)

AREA TFE-E

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>29</u>	<u>30</u>	<u>31</u>																		
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	19	20	21	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>						

Total monthly time facility operated (hours): 730

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-02-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	327,995	7.9
W-1109	71,604	1.8
W-1903	0	0.0
W-1909	0	0.0
W-2305	0	0.0
 Total:	 <u>399,599</u>	 <u>9.7</u>

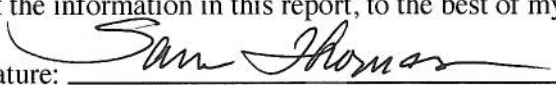
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>399,599</u>

6. Comments:

Facility was shutdown on 09-18-2014 at 08:43 in support of the Lake Haussmann drainage channel maintenance, invasive species control project. Facility was restarted on 09-22-2014 at 11:23. Facility was shutdown on 09-23-2014 at 09:00 to conduct system interlock checks, Facility was restarted on 09-23-2014 at 09:40.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-07-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	27	28	29	30																	
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15						
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					

Total monthly time facility operated (hours): 367

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-17-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>26</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	750	0.5
Total:	<u>750</u>	<u>0.5</u>

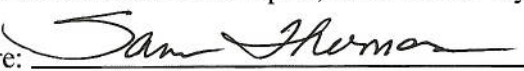
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>750</u>

6. Comments:

Facility secured 5/20/14 due to W-2105 flowmeter failure. Facility was restarted 7/16/14 at 08:55. GTU07/W-2105 secured 7/16/14 at 16:20 in preparation for monthly facility sampling. Facility was restarted 7/17/14 at 09:22. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-26-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** 02 03 04 **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **542**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-13-2014**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **26.2**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	1,085	0.0
W-2801	38,729	2.1
Total:	<u>39,814</u>	<u>2.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>39,814</u>

6. Comments:

GTU07/W-2105 shutdown 7/31 at 13:25 restarted 7/31 at 14:37 due loss of vacuum at wellhead causing upset condition to groundwater level transducer activating low level interlock. GTU07/W-2105 shutdown 8/1 at 07:42 and restarted 8/5 at 13:27 due loss of vacuum at wellhead causing upset condition to groundwater level transducer activating low level interlock. GTU07/W-2150 shutdown 8/11 at 15:15 to perform T&V prior to activation of W-2801. Facility was restarted and W-2801 activated 8-12-14 at 13:27. . W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore, constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-08-2014**

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>29</u>	<u>30</u>	<u>31</u>												
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	19	20	21	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 689

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-29-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	1,260	0.7
W-2801	59,744	1.3
Total:	<u>61,004</u>	<u>2.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>61,004</u>

6. Comments:

Facility shutdown 9-2-14 at 07:37 to repair broken fitting on W-2801 discharge piping. Facility was restarted 9-2-14 at 14:36. Facility shutdown 9-18-14 at 09:40 in support of the Lake Haussmann vegetation removal project. Facility was restarted 9-22-14 at 11:56. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Ham Date: 10-07-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	01	02	03	04	05	06	07	08	09	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 494

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-10-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	180,340	6.2
W-1409	62,994	2.1
Total:	<u>243,334</u>	<u>8.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>243,334</u>

6. Comments:

Facility was shutdown on 06-30-2014 for discharge pump troubleshooting and repairs. Facility was restarted on 07-10-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2014

Self-Monitoring Report

LLNL Portable Treatment Unit 9 (PTU9)

AREA TFE-NW

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **707**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-08-2014**
 Influent pH: **7.0**
 Effluent pH: **7.0**
 Effluent Temperature (°C): **20.8**

4. Wellfield Data:

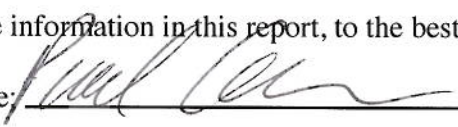
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	260,656	6.2
W-1409	89,744	2.1
Total:	<u>350,400</u>	<u>8.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>350,400</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-02-2014**

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																	
September	<u>01</u>	02	03	<u>04</u>	<u>05</u>	06	07	08	09	10	11	<u>12</u>	13	14	15				
	16	17	18	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	23	24	25	26	27	28	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 226

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-04-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	83,277	6.3
W-1409	29,554	2.2
Total:	<u>112,831</u>	<u>8.6</u>

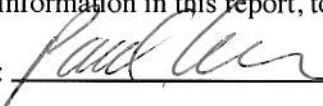
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>112,831</u>

6. Comments:

The following operational and secured cycles were due to discharge pump trouble shooting and repair: Facility was shutdown on 09-01-2014. Facility was restarted on 09-04-2014. Facility was shutdown on 09-05-2014. Facility was restarted on 09-12-2014. Facility was shutdown on 09-12-2014. Facility was restarted on 09-19-2014. System secure from 9/22/14 to 9/29/14 for FY 14 Drainage Channel Maintenance and Invasive Species Control work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>					

Total monthly time facility operated (hours): 828

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-02-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>21.3</u>

4. Wellfield Data:

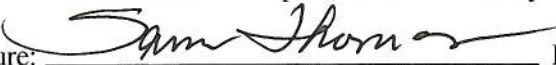
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	419,797	8.4
Total:	<u>419,797</u>	<u>8.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>419,797</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-26-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 672

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2014
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	340,100	8.4
Total:	<u>340,100</u>	<u>8.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>340,100</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-04-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>29</u>	<u>30</u>	<u>31</u>																
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	19	20	21	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 696

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-02-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	353,949	8.4
Total:	<u>353,949</u>	<u>8.4</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>353,949</u>

6. Comments:

Facility was shutdown on 09-18-2014 at 09:26 in support of the Lake Haussmann drainage channel maintenance, invasive species control project. Facility was restarted on 09-22-2014 at 11:41.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-07-2014

Self-Monitoring Report

LLNL Mini Treatment Unit 03 (MTU03)

AREA TFE-SW

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>

Total monthly time facility operated (hours): 792

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-14-2014
 Influent pH: 7.5
 Effluent pH: 7.5
 Effluent Temperature (°C): 23.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	476,864	10.1
W-1518	11,650	0.2
W-1520	34,180	0.8
W-1522	22,770	0.5
Total:	<u>545,464</u>	<u>11.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>545,464</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 08-13-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	15		
	16	17	18	19	20	21	22	23	24	25	26	<u>27</u>	<u>28</u>	<u>29</u>			

Total monthly time facility operated (hours): 396

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-08-2014</u>
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	244,404	10.1
W-1518	5,431	0.2
W-1520	17,959	0.8
W-1522	17,095	0.9
Total:	<u>284,889</u>	<u>12.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>284,889</u>

6. Comments:

Facility was shutdown on 08-14-2014 at 08:45. Facility was restarted on 08-27-2014 at 15:19. The facility did not run for a number of days while the Control System Field Test (Gold System) and interlock tests were being performed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty L. Loh Date: 09-12-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																	
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 650

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-17-2014</u>
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	382,535	10.6
W-1518	8,788	0.2
W-1520	38,120	1.1
W-1522	45,459	1.8
Total:	<u>474,902</u>	<u>13.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>474,902</u>

6. Comments:

Facility shutdown at 15:21 on 09-04-2014 due to W-1516 low flow. Facility was restarted at 14:22 on 09-05-2014. Facility was shutdown at 15:35 on 09-18-2014 for FY14 Drainage Channel Maintenance and Invasive Species Control Schedule. Facility was restarted at 10:50 on 09-22-2014. W-1518, W-1520, and W-1522 shutdown at different times during the month due to low flow.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Krid Date: 10-20-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 785

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-14-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	283,210	6.1
W-305	656,540	14.0
Total:	<u>939,750</u>	<u>20.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>939,750</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Bill [Signature] Date: 08-13-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>																	
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>			
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	28	29				

Total monthly time facility operated (hours): 657

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-08-2014</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	237,986	6.1
W-305	552,047	14.0
Total:	<u>790,033</u>	<u>20.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>790,033</u>

6. Comments:

Facility was shutdown on 08-27-2014 at 08:47 in preparation for Control System Field Test (Gold System).

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 09-12-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	30	31																											
September	01	02	03	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>														
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	23	24	25	26	27	28	<u>29</u>	<u>30</u>														

Total monthly time facility operated (hours): 472

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-17-2014</u>
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	171,918	6.1
W-305	337,245	14.0
Total:	<u>509,163</u>	<u>20.1</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>509,163</u>

6. Comments:

The facility did not run for several days until several software issues were resolved. Facility was restarted at 10:36 on 09-04-2014. Facility was shutdown at 11:14 on 09-22-2014 for the FY14 Drainage Channel Maintenance and Invasive Species Control Schedule. Facility was restarted at 10:40 on 09-29-2014. W-305 shut down several times during the month due to low flow issues.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-20-2014

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treatment facility operated

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	21	22	23	24	25	26	27	28	29	30	31					

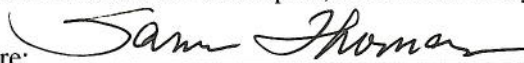
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	31,906	0.0	0	0	568
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	813,150	0.0	0	0	568
W-543-1908	0	0.0	0	0	0
Total:					
	<u>845,056</u>	<u>0.0</u>			

4. Comments:

VES 16 was discovered shutdown 7/21/14 due catastrophic motor failure that occurred 05:15 7/20/14. As a result,BAAQMD compliance measurements for July were not recorded.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-26-2014

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	0	0.0	0	0	0
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	0	0.0	0	0	0
W-543-1908	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

VES 16 was discovered shutdown 7/21/14 due catastrophic motor failure that occurred 05:15 7/20/14. Facility did not operate in reporting month.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-04-2014**

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August	29	30	31													
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	<u>24</u>	25	26	27	28	<u>29</u>	<u>30</u>	

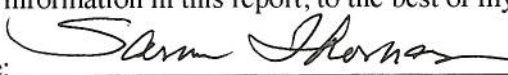
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	375	1.7	-17	82	13
W-1909	44	0.0	0	0	1
W-2305	10	0.0	0	0	1
W-543-001	16	0.0	0	0	0
W-543-003	970	0.0	0	0	13
W-543-1908	10	0.0	0	0	0
<hr/>					
Total:	<u>1,425</u>	<u>1.7</u>			

4. Comments:

Facility discovered shutdown 7-21-14 due to failed blower motor. 15hp Nash Elmo unit was removed and replaced with 2.2hp Nash Elmo unit 9-5-14, facility operations commenced 9-24-14 at 13:55. Facility was shutdown on 09-24-2014 at 15:17. Facility was restarted on 09-29-2014 at 12:36. Facility was shutdown on 09-29-2014 at 13:50. Facility was restarted on 09-30-2014 at 11:15. Quarterly vapor samples collected from idle and operating extraction wells 9-24-14 and 9-30-14.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-08-2014**

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treatment facility operated

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																		
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	10	11	12	13	14	15							
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>						

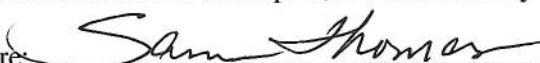
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	33,602	1.5	-17.54	60	365
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	564,700	13.5	-7.37	60	677
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
<div style="display: flex; justify-content: space-between;"> Total: <u>598,302</u> <u>15.0</u> </div>					

4. Comments:

Facility was shutdown on 07-09-2014 at 10:00 for system software upgrade.
Facility was restarted and soil vapor extraction from W-2105 activated 7/16/14 at 10:45.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-28-2014**

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August **01** 02 03 **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	56,091	1.6	-17.9	70	598
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	443,527	12.0	-9.45	70	598
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>499,618</u>	<u>13.5</u>			

4. Comments:

Facility was shutdown on 08-01-2014 at 07:35 due to low discharge separator level. Operations resumed 08-04-2014 at 15:21. Facility hours of operation and well field cumulative volumes entered on this report have been adjusted due to facility totalizers accumulating while offline.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-08-2014**

Self-Monitoring Report LLNL Vapor Extraction System 12 (VES12) AREA VTFE-HS

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August	<u>29</u>	<u>30</u>	<u>31</u>																	
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	74,010	1.6	-19.14	58	796
W-ETS-2008A	12	0.0	0	0	0
W-ETS-2008B	553,037	11.4	-11.14	58	796
W-ETS-2009	41	0.0	0	0	0
W-ETS-2010A	8	0.0	0	0	0
W-ETS-2010B	16	0.0	0	0	0
Total:					
	<u>627,124</u>	<u>13.0</u>			

4. Comments:

Quarterly vapor samples collected from operating and idle extraction wells 9-3-14.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-07-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 744

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	<u>201,685</u>	<u>4.5</u>
Total:	<u>201,685</u>	<u>4.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>201,685</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2014

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month July Year 2014

2. Date compliance sampling performed 07-02-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.03</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

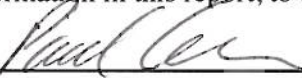
Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>7.0</u>	<u>22.9</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-02-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **673**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-08-2014**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.3**

4. Wellfield Data:

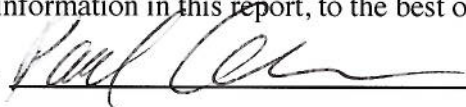
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	177,708	4.5
Total:	<u>177,708</u>	<u>4.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>177,708</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-02-2014**

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month August Year 2014

2. Date compliance sampling performed 08-08-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.2</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-22-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																								
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 754

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-03-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	163,178	4.6
Total:	<u>163,178</u>	<u>4.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>163,178</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month September Year 2014

2. Date compliance sampling performed 09-03-2014

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.92</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-22-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 748

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	46,094	1.0
W-1807	190,481	4.5
Total:	<u>236,575</u>	<u>5.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>236,575</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2014

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **709**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-08-2014**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	34,129	0.8
W-1807	170,338	4.0
Total:	<u>204,467</u>	<u>4.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>204,467</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-02-2014**

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>				

Total monthly time facility operated (hours): 802

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-16-2014</u>
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	110	4.5
W-1310	418,450	8.9
Total:	<u>418,560</u>	<u>13.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>418,560</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy R. Rild Date: 08-13-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	

Total monthly time facility operated (hours): 725

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-08-2014</u>
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	381,424	8.9
Total:	<u>381,424</u>	<u>8.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>381,424</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty L. L. L. Date: 09-12-2014

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																											
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>														
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	23	24	25	26	27	28	29	30														

Total monthly time facility operated (hours): 582

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-16-2014</u>
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	303,599	8.7
Total:	<u>303,599</u>	<u>8.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>303,599</u>

6. Comments:

Facility was shutdown at 11:06 on 09-22-2014 for Fy14 Drainage Channel Maintenance and Invasive Species Control Schedule. The facility could be started on 09/29 - 09/30 due to a bad discharge pump.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty Lucil Date: 10-20-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 739

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	<u>278,592</u>	<u>6.1</u>
Total:	<u>278,592</u>	<u>6.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>278,592</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Paul Cor Date: 08-01-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): **695**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-08-2014**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.7**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	251,439	6.1
Total:	<u>251,439</u>	<u>6.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>251,439</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-02-2014**

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																								
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>											
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	23	24	25	26	27	28	<u>29</u>	<u>30</u>											

Total monthly time facility operated (hours): 604

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-03-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	208,081	5.8
Total:	<u>208,081</u>	<u>5.8</u>

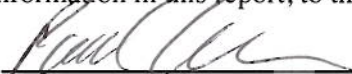
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>208,081</u>

6. Comments:

System secure from 9/22/14 to 9/29/14 for FY 14 Drainage Channel Maintenance and Invasive Species Control work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	30														
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
<hr/>		
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **07-31-2014**

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	31														
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28		

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 08-29-2014

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	29	30	31												
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-03-2014**

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 737

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	42	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	8	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>50</u>	<u>0.0</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>50</u>

6. Comments:

VES 19 and HDTANK operations secured 7-22-14 at 08:05 for GAC replacement. Facility operations resumed 7-22 at 15:20. Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-28-2014**

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 630

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	30	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	5	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>35</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>35</u>

6. Comments:

Facility shutdown 8-25-14 at 16:00 allow groundwater levels in extraction wells to increase prior collection quarterly groundwater samples. Facility was restarted 8-27-14 at 11:20. Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: 09-04-2014

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 30 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 598

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	29	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	5	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>34</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>34</u>

6. Comments:

Air supply to pneumatic groundwater pumps offline 8/29/14 to 9-5-14 due to tripped circuit breaker.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 10-08-2014

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	28	29	30																
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty Kuhl Date: 08-13-2014

Operator Signature: Betty L. Hill Date: 09-12-2014

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	30	31																	
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Hill Date: 10-20-2014

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	0	0.0
W-1415	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

Facility did not operate, well 1108 still down.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-04-2014**

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 **28**

Total monthly time facility operated (hours): 2

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-28-2014**

Influent pH: **7.5**

Effluent pH: **7.5**

Effluent Temperature (°C): **23.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	348	2.9
W-1415	0	0.0
Total:	<u>348</u>	<u>2.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>348</u>

6. Comments:

Well 1108 was off line so facility could not operate in August.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-08-2014**

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>29</u>	<u>30</u>	<u>31</u>																	
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	20	21	<u>22</u>	23	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

Total monthly time facility operated (hours): 683

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-04-2014</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	102,125	2.3
W-1415	0	0.0
Total:	<u>102,125</u>	<u>2.3</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>102,125</u>

6. Comments:

Facility was down 9/20, 9/21, and 9/23, and part of the day 8/29 due to low flow alarms, well 1108 over load tripping. Overload has been adjusted.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2014

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

June	28	29	30																
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. Hill Date: 08-13-2014

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

July	31																		
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. L. L. Date: 09-12-2014

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treated ground water was discharged

August	30	31																	
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty Smith Date: 10-20-2014

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treatment facility operated

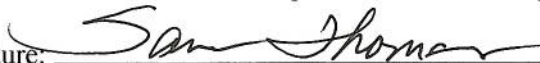
June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	686,263	13.8	-2.11	74	837
W-514-2007A	0	0.0	0	0	0
W-514-2007B	457,732	9.2	-2.41	74	837
Total:					
	<u>1,143,995</u>	<u>23.1</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-28-2014

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

Source	Monthly Volume(cu. ft)	Instantaneous Flow Rate(scfm)	P(in. Hg)	T(°F)	Hours of Op.
W-217	548,999	13.5	-2.01	68	671
W-514-2007A	0	0.0	0	0	0
W-514-2007B	364,828	9.0	-2.29	68	671
Total:	<u>913,827</u>	<u>22.5</u>			

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values. Facility and wellfield monthly hours of operation entered on this report were acquired from TFRT due to malfunction of facility clock.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Homan Date: 09-10-2014

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August	<u>29</u>	<u>30</u>	<u>31</u>																	
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

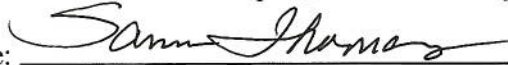
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	637,998	13.4	-2.04	75	791
W-514-2007A	0	0.0	0	0	0
W-514-2007B	430,518	9.0	-2.34	75	791
<hr/>					
Total:	<u>1,068,516</u>	<u>22.4</u>			

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-13-2014

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treatment facility operated

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>					

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	547,658	10.7	-4.2	70	838
W-2208A	0	0.0	0	0	0
W-2208B	417,093	8.1	-3.6	70	838
W-2206	0	0.0	0	0	0
Total:	<u>964,751</u>	<u>18.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-26-2014

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treatment facility operated


August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	435,992	7.9	-3.7	75	678
W-2208A	0	0.0	0	0	0
W-2208B	329,211	10.5	-4.2	75	678
W-2206	0	0.0	0	0	0
Total:	<u>765,203</u>	<u>18.4</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-08-2014

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August	<u>29</u>	<u>30</u>	<u>31</u>																	
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>					

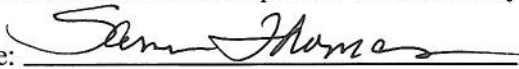
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	19	0.0	0	0	0
W-2207B	517,116	11.8	-5	64	772
W-2208A	26	0.0	0	0	0
W-2208B	401,376	9.3	-4.4	64	772
Total:	<u>918,537</u>	<u>21.1</u>			

4. Comments:

Facility was shutdown on 09-10-2014 at 15:10, cause of shutdown unknown. Facility was restarted on 09-11-2014 at 07:25. Blower speed/frequency controller was changed from manual to auto mode to optimize system performance and increase vapor flow from extraction wells. Quarterly vapor samples taken from idle and operating extraction wells 9-15-14.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-07-2014

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month July **Week: 1** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

June	<u>28</u>	<u>29</u>	<u>30</u>
July	<u>01</u>	<u>02</u>	<u>03</u>

3. Wellfield Data:

Source	Weekly Volume(cu. ft)	Instantaneous Flow Rate(scfm)	P(in. Hg)	T(°F)	Hours of Op.
W-1615	34,034	4.0	-16	60	142
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	12,763	1.5	-19	60	142
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>46,797</u>	<u>5.5</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **08-26-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month July **Week: 2** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

July **04** **05** **06** **07** **08** **09** **10** **11**

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	47,362	4.1	-15.5	59	193
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	18,483	1.6	-19	59	193
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>65,845</u>	<u>5.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-26-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month July **Week: 3** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

July **12** **13** **14** **15** **16** **17** **18**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	41,407	4.1	-15.5	66	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	16,159	1.6	-19	66	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>57,566</u>	<u>5.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-26-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month July **Week: 4** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

July **19** **20** **21** **22** **23** **24** **25**


3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	36,824	3.8	-16	88	162
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	14,536	1.5	-18.5	88	162
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>51,360</u>	<u>5.3</u>			

4. Comments:

Facility was secured on 07-22-2014 at 08:05 upon discovery of concentration levels exceeding permit conditions at CF4I. Carbon filters 007 replaced with 011. Facility was restarted on 07-22-2014 at 15:20.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-26-2014

Self-Monitoring Report

LLNL Vapor Extraction System 19 (VES19)

AREA VTF518-PZ

1. Reporting Period: Business Month August Week: **1** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

July 26 27 28 29 30 31
 August 01

3. Wellfield Data:

Source	Weekly Volume(cu. ft)	Instantaneous Flow Rate(scfm)	P(in. Hg)	T(°F)	Hours of Op.
W-1615	39,996	4.0	-15.5	70	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	15,998	1.6	-18.4	70	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>55,994</u>	<u>5.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **09-04-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August **Week: 2** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

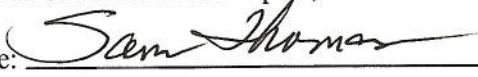
August **02** **03** **04** **05** **06** **07** **08**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	42,354	4.2	-15	58	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	16,135	1.6	-18.5	58	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>58,489</u>	<u>5.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-04-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August **Week: 3** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

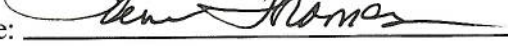
August **09** **10** **11** **12** **13** **14** **15**

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	41,825	4.1	-15.5	62	170
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	17,342	1.7	-18.5	62	170
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>59,167</u>	<u>5.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-04-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August **Week: 4** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

August **16** **17** **18** **19** **20** **21** **22**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	40,380	4.0	-15.5	74	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	17,162	1.7	-18.5	74	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>57,542</u>	<u>5.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-04-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August **Week: 5** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

August **23** **24** **25** **26** **27** **28** **29**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	40,898	4.1	-15.5	60	166
W-518-1913	0	0.0	0	0	166
W-518-1914	0	0.0	0	0	166
W-518-1915	16,958	1.7	-18.5	60	166
SVB-518-201	0	0.0	0	0	166
SVB-518-204	0	0.0	0	0	166
Total:	<u>57,856</u>	<u>5.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-04-2014

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September **Week: 1** Year **2014**

2. Dates (in **bold** and underline) treatment facility operated

August 30 31
September 01 02 03 04 05

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,532	3.8	-15.7	60	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	17,238	1.7	-19	60	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>55,770</u>	<u>5.5</u>			

4. Comments:

Quarterly vapor samples collected from operating and idle extraction wells 9-3-14

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-07-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 2 Year 2014

2. Dates (in **bold** and underline) treatment facility operated

September **06** **07** **08** **09** **10** **11** **12**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,944	3.8	-15	63	166
W-518-1913	0	0.0	0	0	166
W-518-1914	0	0.0	0	0	166
W-518-1915	17,973	1.8	-18	63	166
SVB-518-201	0	0.0	0	0	166
SVB-518-204	0	0.0	0	0	166
Total:	<u>55,917</u>	<u>5.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-07-2014**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 3 Year 2014

2. Dates (in **bold** and underline) treatment facility operated

September **13** **14** **15** **16** **17** **18** **19**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	41,350	4.1	-15	58	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	18,154	1.8	-18	58	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>59,504</u>	<u>5.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 10-07-2014

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 4 Year 2014

2. Dates (in **bold** and underline) treatment facility operated

September **20** **21** **22** **23** **24** **25** **26**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	36,949	3.6	-16	73	171
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	18,474	1.8	-18	73	171
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>55,423</u>	<u>5.4</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-07-2014

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month July Year 2014

2. Dates (in **bold** and underline) treatment facility operated

June	28	29	30														
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15		
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-ETS-507	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Betty Liden Date: 08-25-2014

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month August Year 2014

2. Dates (in **bold** and underline) treatment facility operated

July	31														
August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-ETS-507	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. L. L. Date: 09-12-2014

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month September Year 2014

2. Dates (in **bold** and underline) treatment facility operated

August	30	31																								
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15											
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30											

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-ETS-507	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-20-2014

Attachment C

Figures

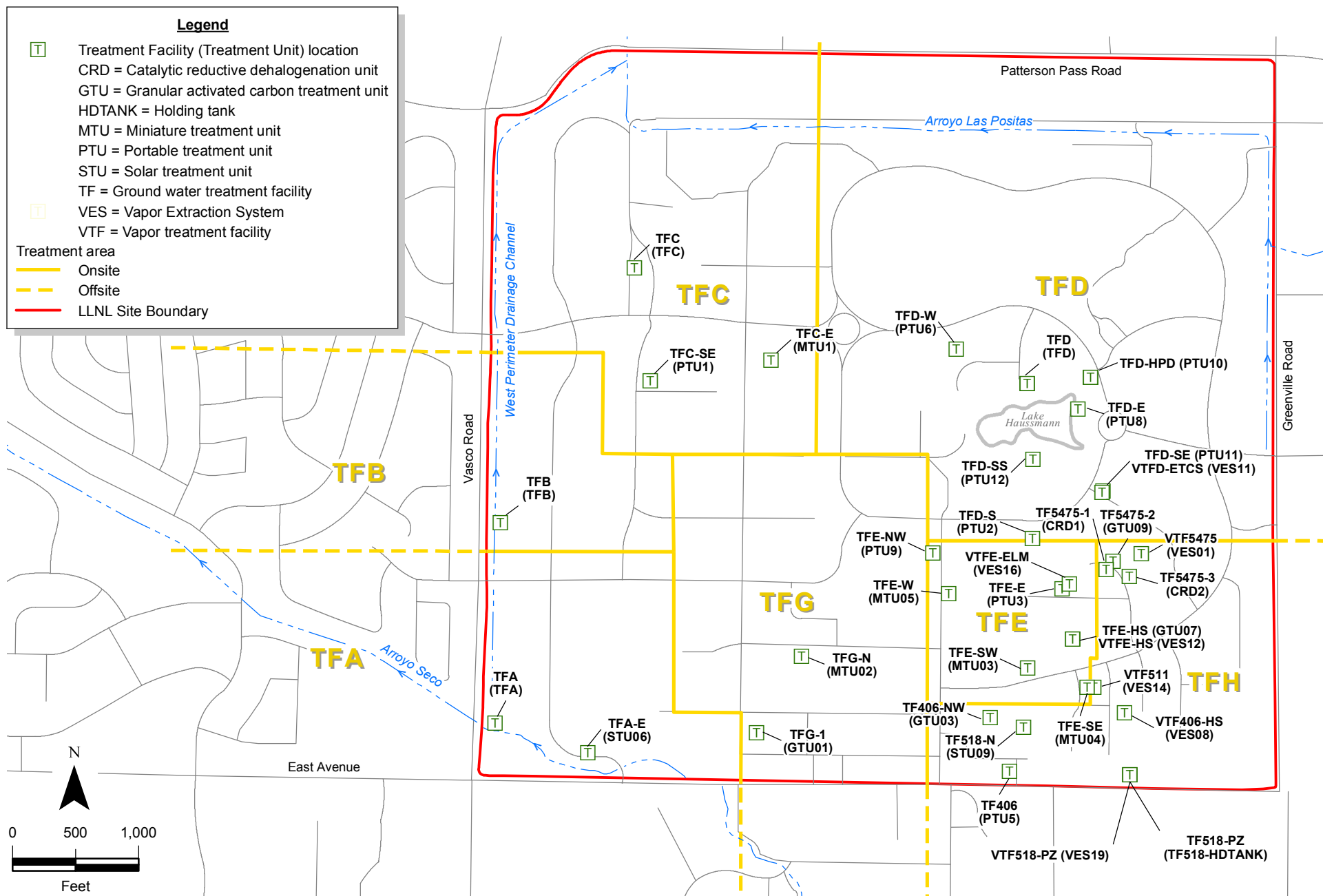


Figure 1. Livermore Site treatment areas and treatment facility locations.

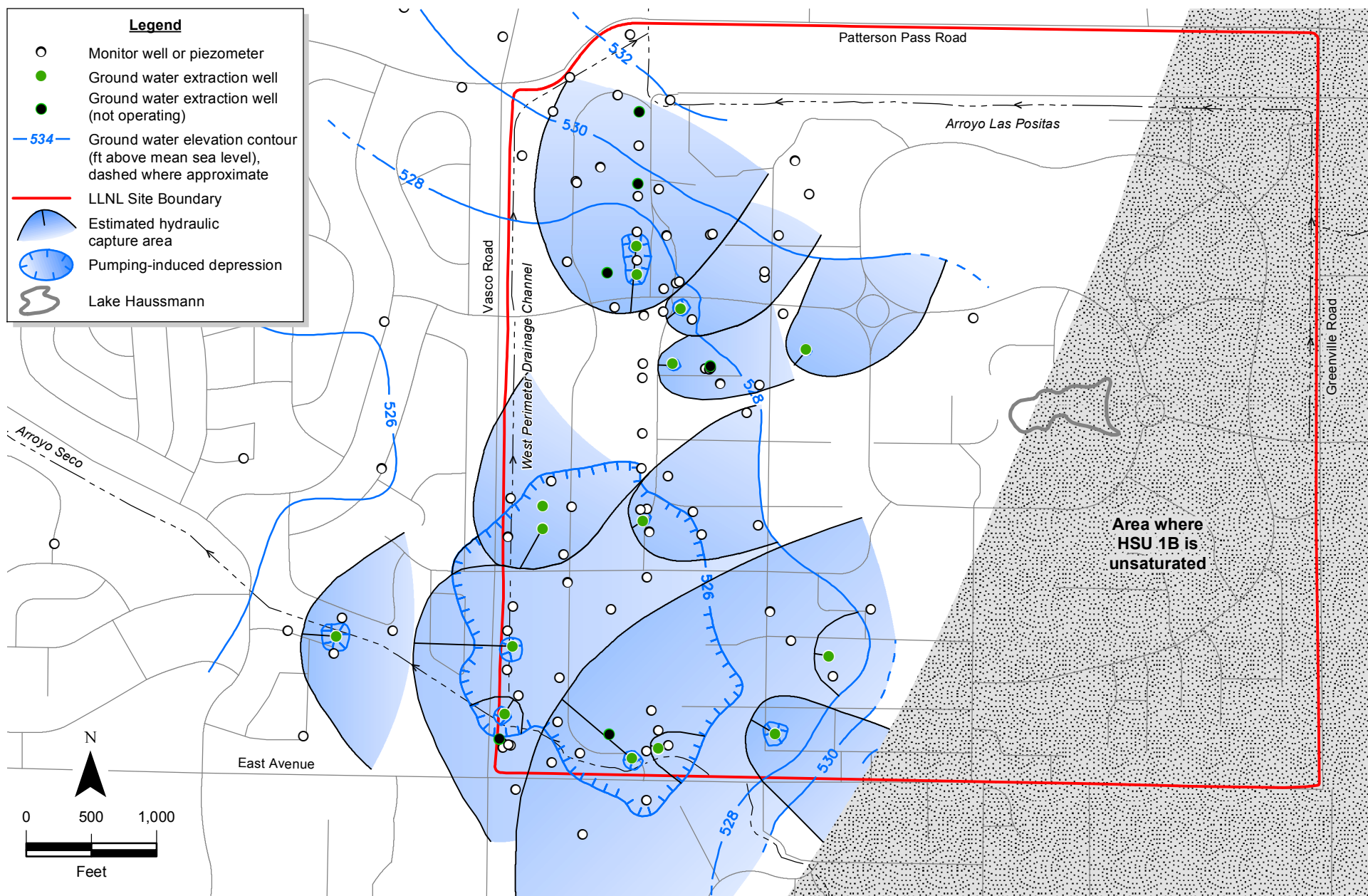


Figure 2. Ground water elevation contour map based on 114 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2014.

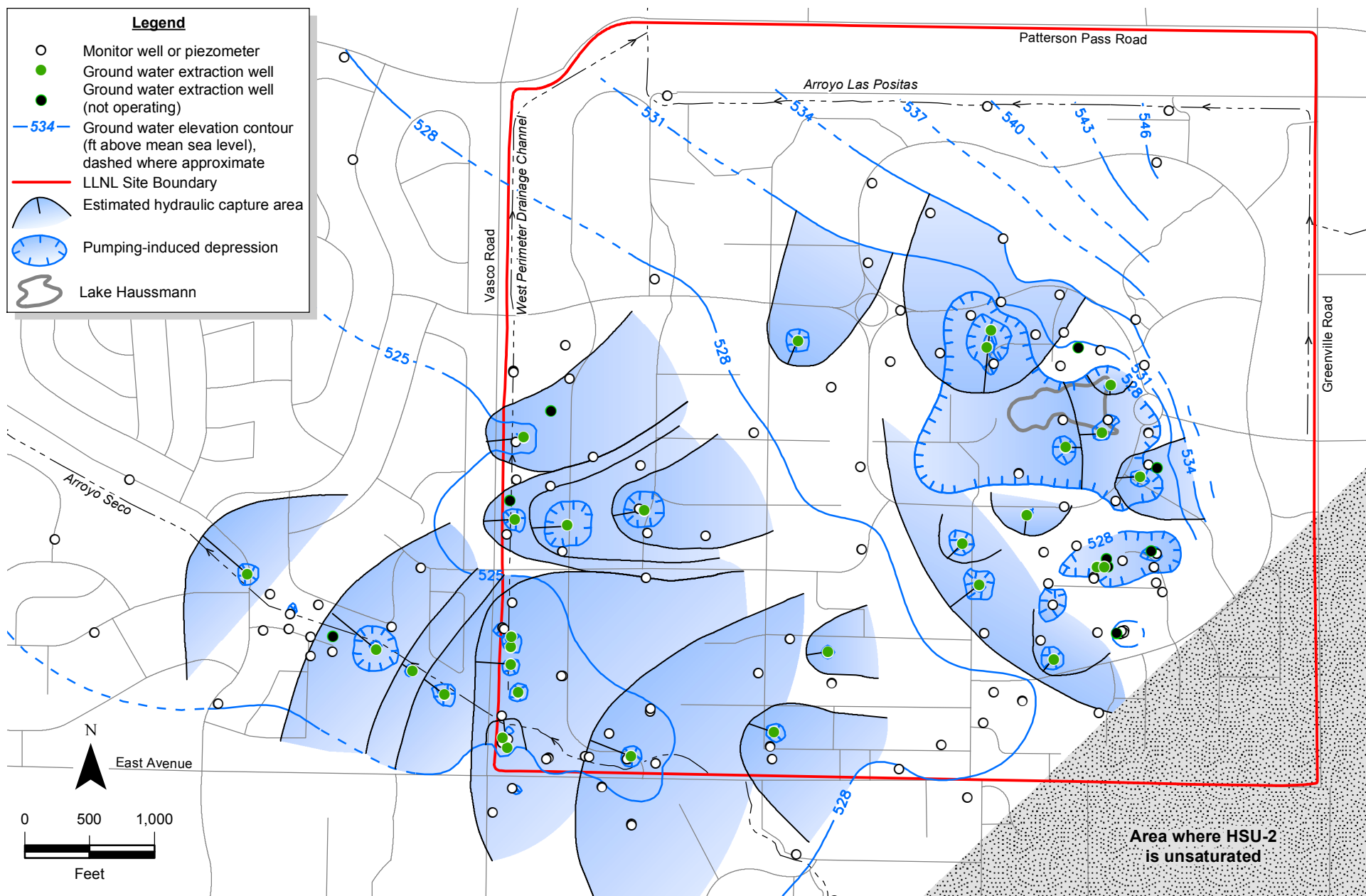


Figure 3. Ground water elevation contour map based on 166 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2014.

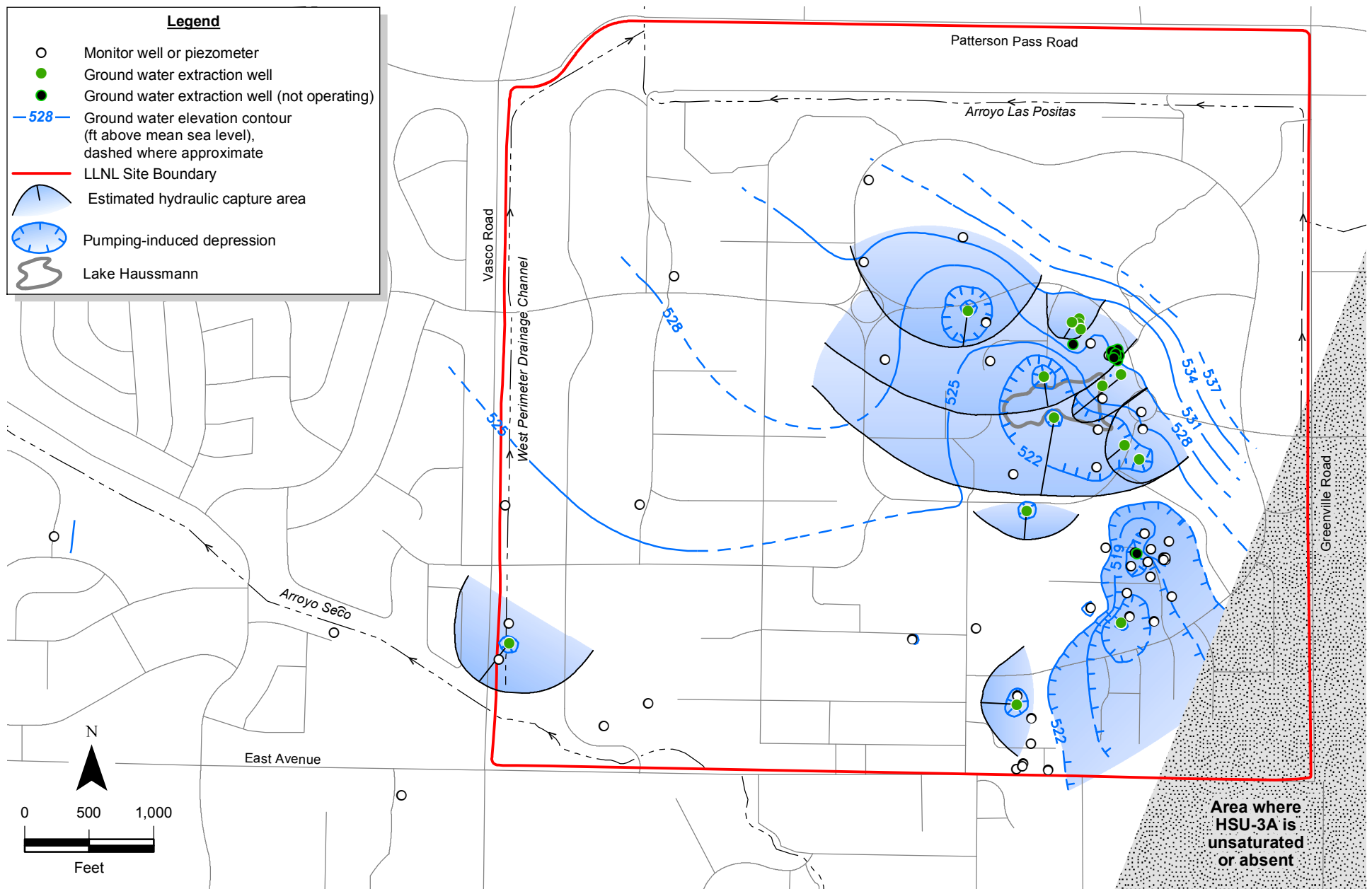


Figure 4. Ground water elevation contour map based on 78 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2014.

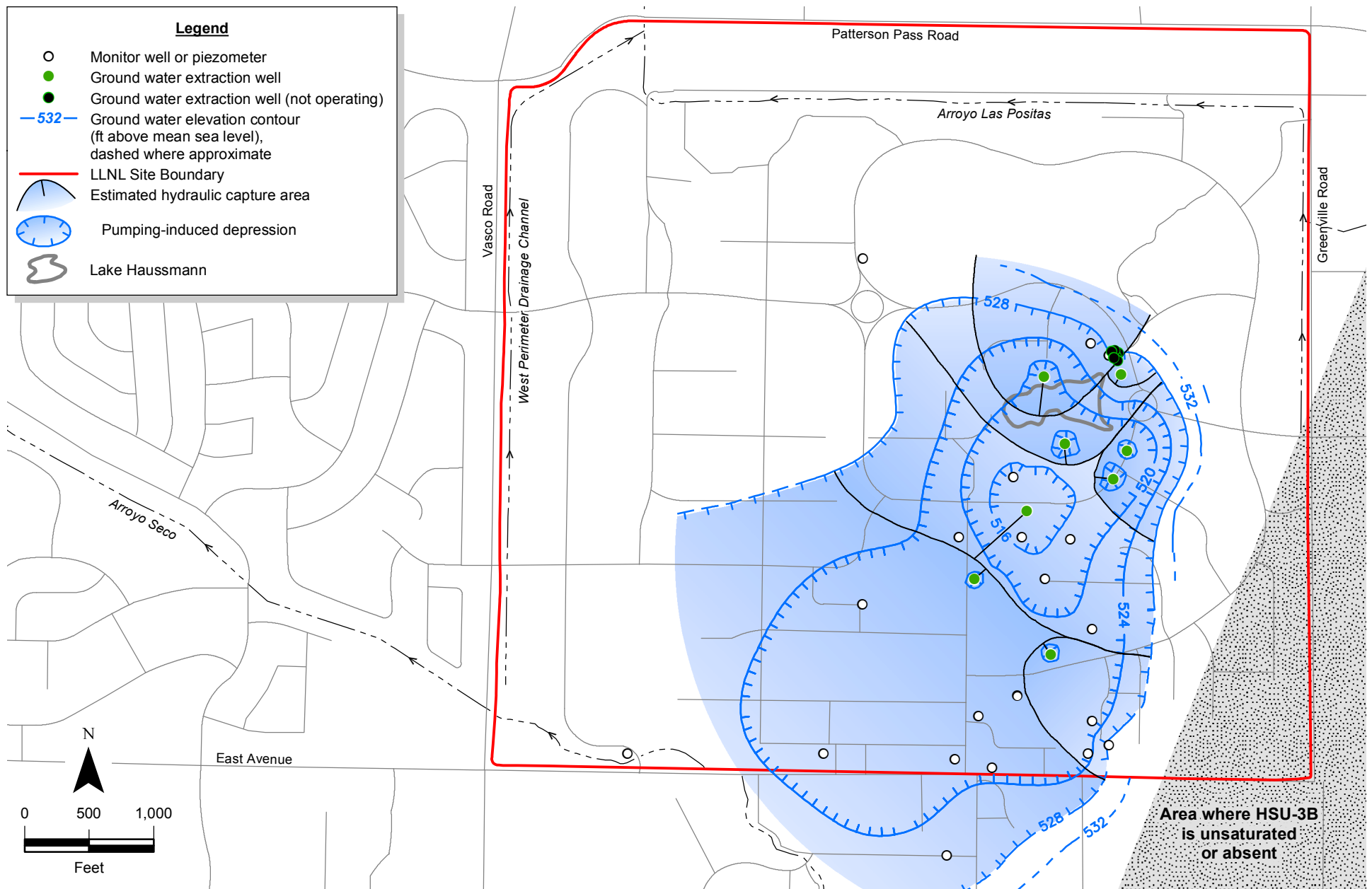


Figure 5. Ground water elevation contour map based on 34 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2014.

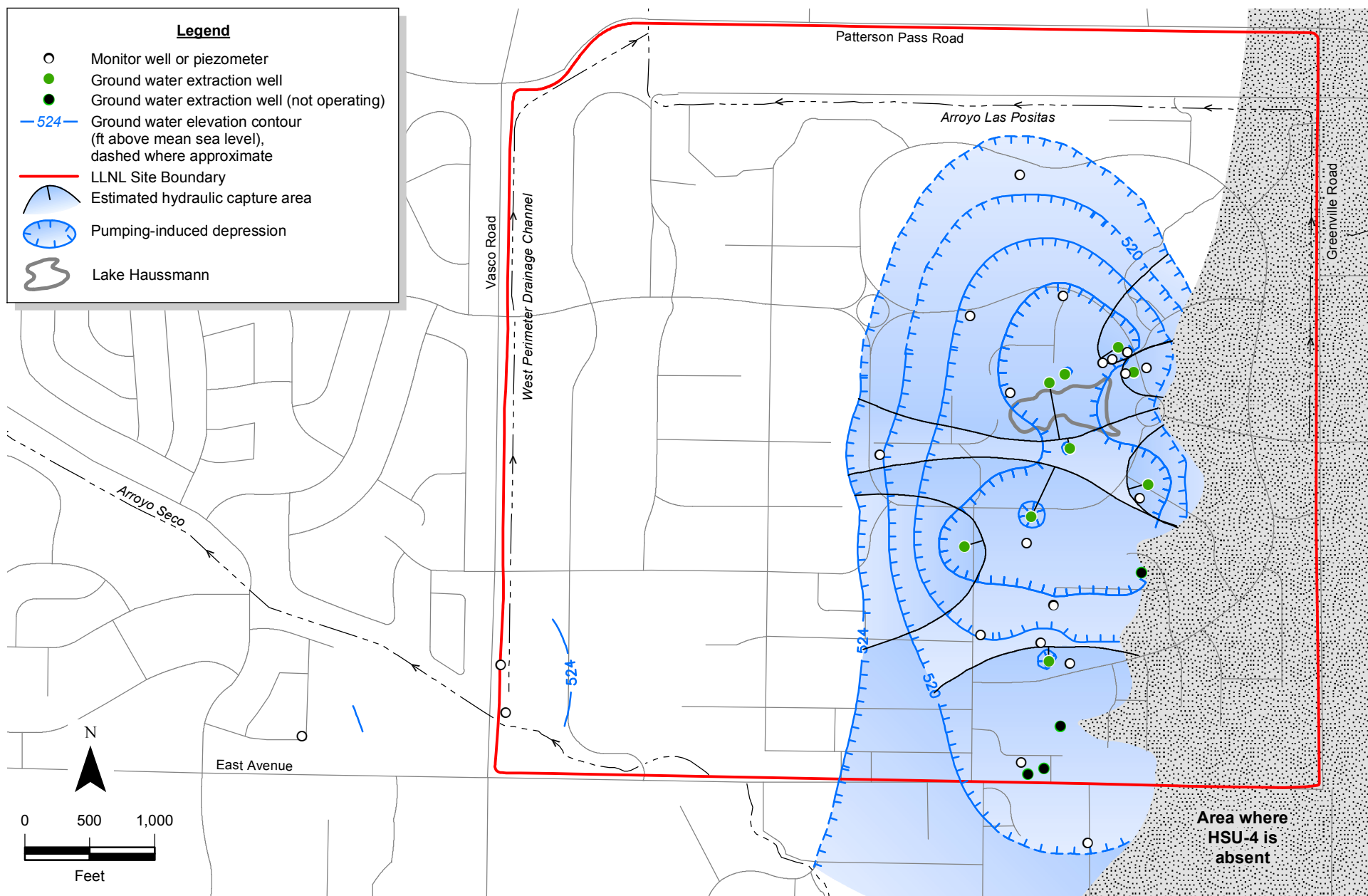


Figure 6. Ground water elevation contour map based on 34 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2014.

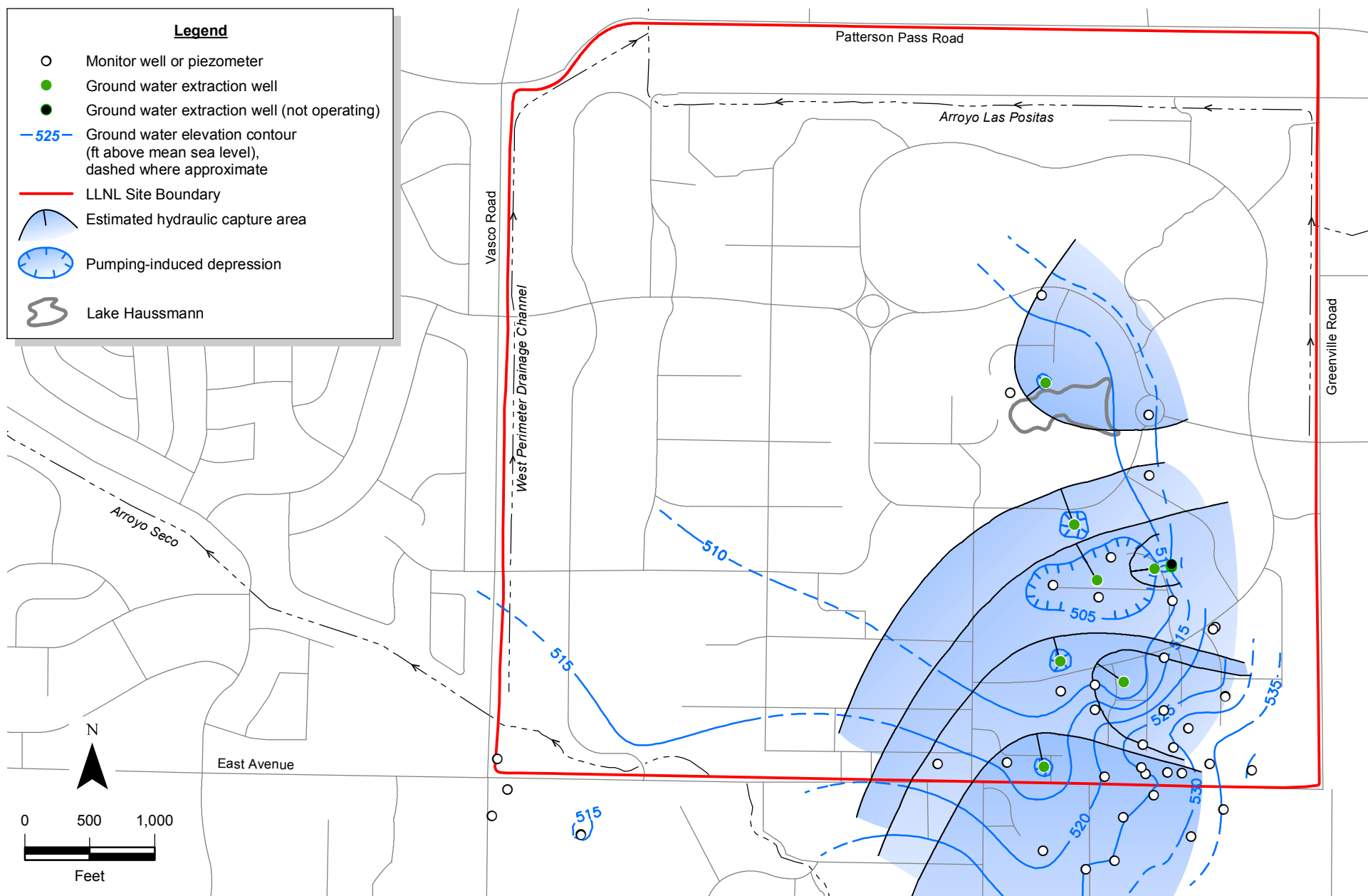


Figure 7. Ground water elevation contour map based on 50 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2014.